HELMHOLTZ Centre for Environmental Research

DIVERSITY MONITORING - KEY INDICATOR REPORT 2020

REPORT ON THE SITUATION OF DIVERSITY AND EQUAL OPPORTUNITIES AT THE UFZ

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Date: 30 November, 2021, Leipzig

Foreword

For the first time, the Key Indicator Report 2020 summarises the most important diversity indicators for the UFZ in one report and, thus, lays the foundation for comprehensive diversity monitoring. It contains an impressive collection of indicators which were collected under the leadership of the UFZ's Equal Opportunities Officer. The indicators range from internal statistics and the results of surveys to the classification of internationally used indicators of gender equality. In this way, very different aspects of the topic of diversity are illuminated.

Data and facts are deliberately placed in the foreground and hypotheses on possible causes or proposed solutions are dispensed with. As a result, the Key Indicator Report 2020 forms a solid data basis and provides the ideal foundation for the next steps.

The UFZ is far from having reached its goal on its path to become an employer that actively promotes diversity and inclusion. The data show light - for example, there is no systematic discrimination in hiring practices - but also shadow - for example, gender equity quotas are improving only very slowly, if at all. This report is an important step on this path.

The Key Indicator Report 2020 is an internal UFZ document that is supposedto help designing targeted measures to improve the situation of underrepresented employee groups. To this end, it is available on the intranet and shall give all UFZ bodies and people engaged in the topic the opportunity to get to know the current state. At the UFZ, measures are currently being developed to promote gender equality ("Update of the UFZ Equality Plan") and the inclusion of severely disabled people ("Action Plan for the Inclusion of People with Disabilities at the UFZ"). All UFZ employees are invited to participate in the implementation or to contribute further ideas.

Dr. Sabine König, Administrative Director

Acknowledgements

A big thank you to:

- all scientific and administrative departments and people who facilitated data provision, often with extra efforts
- all members of the equal opportunities working group for their valuable and helpful suggestions and comments
- all commissioners, representatives and experts who accompanied the interpretation of the data with their expertise

Summary

The Diversity Monitoring is a compilation of various common indicators and provides a first impression of how diverse and inclusive the UFZ is. Using quantitative indicators, it depicts the current status quo for five areas and highlights where there is a need for action. Due to the currently available data, the diversity dimension of gender is predominantly considered; continuous further development of the monitoring is intended.

In the following, important statements and indicators are summarised for the respective areas:

- **Positioning and perception of the UFZ:** In comparison with other institutions, the UFZ occupies a midfield position. The perception among employees tends to be positive, although women rate the UFZ more critically than men in terms of its equality successes and efforts to promote diversity and inclusion.
- **Recruitment and career development:** Distortions to the disadvantage of women are visible across various indicators, especially in the area of scientific career development. The figures for personnel selection procedures and the targets for filling vacant positions are yet or are developing positively. Also, it is becomes clear that job advertisements in English can make a significant contribution to the internationalisation of the centre.
- **Visibility and participation:** Across various indicators, the under-representation of women in public communication and media portrayal as well as in some decision-making bodies, councils and advisory boards becomes clear. At the same time, the indicators show that important councils are already successfully staffed with gender parity.
- **Reconcilableness:** The distribution of parental leave and part-time employment suggests that women take on a disproportionate amount of care work. Nevertheless, or because of this, reconcilableness at the UFZ is equally positively rated by men and women.
- **Accessibility:** The number of severely disabled employees is significantly below the official requirement and has fallen continuously in recent years.

In particular, new appointments to vacant positions and the respective goal orientation of the UFZ point in the direction to strengthen diversity, inclusion, and equal opportunities. At the same time and as seen from a gender equality perspective, some goals according to the cascade model could be more ambitious to accelerate change processes, whereas goal realisation thus becomes increasingly challenging. Measures should primarily focus on equal opportunities in academic career development. Some of the indicators show considerable differences between various organisational units and areas of activity which requires a close look at the background and design options.

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Introduction

Purpose of monitoring

The diversity of people and their perspectives is a resource and a strength; their inclusion and the securing of equal opportunities for all are aspiration and obligation of our research center. Our goal is to further develop the UFZ into an outstanding example of an inclusive and diversity-sensitive institution in its structures, its lived culture, and in the perception of its employees and partners.

Those who want to improve need feedback. A diversity monitoring provides a data basis to recognize changes, identify needs for action, develope measures and, above all, facilitate transparent communication.

Quantitative data in form of measurements, frequencies, proportions, descriptive statistics, etc. form part of the overall picture. They help to provide orientation and guide efforts to make improvements. At the same time, they provide little information about causes and contexts, and often ignore aspects that are difficult to quantify, such as discourses, objectives, and backgrounds. Quantitative monitoring data thus provides only one, but central contribution to reflect on diversity and inclusion at the UFZ.

Methodological aspects of monitoring

Data basis

Unless otherwise stated, the reported data refer to the cut-off date 31.12.2020 or the period of the calendar year 2020. The population consists of all UFZ employees excluding guests and student assistants; staff are counted in "heads", not in "full-time equivalents".

Gender as a binary variable

The variable gender is binary due to the data basis, i.e. women and men are considered. The diversity monitoring will develop further in this respect and integrate non-binary gender identities into the monitoring while preserving anonymity in small samples.

Gender versus other dimensions of diversity

The aim of the monitoring is to depict various dimensions of diversity. However, for many dimensions the data basis is sparse or non-existent, e.g. for ideology, sexual orientation, family constellation, or lifestyle. On the other hand, many dimensions of diversity are private aspects that should not be recorded statistically by the employer. Against this background, the indicators of this monitoring predominantly map (binary) gender relations. At the same time, the diversity monitoring will continue to develop, and indicators will be added or adapted depending on the availablibility of data, the issues of interest, and possible areas of action.

Description of current state

The indicators show the current state for various facets of the topic of diversity and equal opportunities at the UFZ. It is not clear from the indicators themselves how this state has come about. In other words, the reasons for what the indicator shows cannot be derived from the figures. Where an indicator shows an imbalance, causes and contexts must be investigated.

Structure of the monitoring

Diversity and inclusive environments manifest themselves in many facets. The monitoring addresses five areas that include various indicators, each. The areas and indicators reflect current topics and dynamics. The indicators themselves may also change over time in a dynamic and needs-oriented manner (also depending on the respective data situation).

The area *positioning and perception* comprises indicators that rank the efforts of the UFZ in comparison to other institutions and map the perception of these efforts by UFZ staff. This summarizing impression can be examined in more detail by the four other areas of the monitoring. The area *recruitment and career development* comprises indicators that measure efforts towards diversity-sensitive personnel development, as well as show current gender ratios and the degree of internationalisation for various staff groups and career levels. The area *visibility and participation* comprises indicators that allow statements on the representation of women. This concerns both democratic participation as well as public representation of women scientists. The area *reconcilableness* comprises indicators that are meaningful for the gendered distribution of care work and paid work. The area *accessibility* address the proportion of employees with severe disabilities.

AREA	INDICATORS
Positioning and perception of the UFZ	• CEWS University ranking according to gender equality • Glass Ceiling Index (GCI) • UFZ Survey • Applications to the Humboldt Foundation "Philipp Schwartz Initiative"
Recruitment and career development	• Application-Interview-Hiring • Language of job postings • Career development • Target agreement: cascade model and target corridors in science • Project management in science • PoF IV: Chair of the Integration Platforms • Salary structure • Funding in science • Tenure in science
Visibility and participation	• Supervision boards of the PhD colleges • Boards, councils, and commissions • UFZ Awards • Helmholtz Environmental Lecture (HEL) • UFZ Telegraf • UFZ Annual reception • UFZ YouTube channel
Reconcilableness of care work and paid work	• Part-time employment • Parental leave • Perceived reconcilableness of family and work
Accessibility	• Employment rate of severely disabled people

Indicators

Area: Positioning and perception of the UFZ

The UFZ is committed to the goal of promoting and living diversity and equal opportunities as a fundamental attitude and strength of the centre, and thus to act as a role model. This requires continuous improvement and adaptation of internal processes in order to achieve measurable results. Reflection and feedback are necessary to continuously review the achievement of goals as well as the effectiveness and fit of measures. Orientation is provided, among other things, by rankings and indices that compare the efforts and successes of the gender equality work of different research institutions, e.g. the CEWS University ranking according to gender equality or the Glass-Ceiling-Index of the European Union.

Indicator: CEWS University ranking according to gender equality

The ranking of the Center of Excellence Women and Science (CEWS) of the Leibniz Institute for the Social Sciences compares all universities in Germany on the basis of six criteria that reflect gender equality in science and research:

- *Proportion of women* in doctoral studies
- *Proportion of women* in scientific qualification after doctorate
- *Proportion of women* among academic staff below tenured professorship level
- *Proportion of women* professors
- *Change in* the proportion of women among scientific staff
- *Change in the* proportion of women among professors

For each criterion, the universities are ranked from the most successful to the least successful. The first 25% are assigned to the top group and receive 2 points, the last 25% are assigned to the bottom group and receive 0 points, all others are assigned to the middle group and receive 1 point. Based on the total number of points achieved across the six criteria (i.e. max. 12, min. 0 points), the universities fall into one of the ranking groups 1-13 (ranking group 1 if 12 out of 12 possible points are achieved, ranking group 13 if 0 out of 12 possible points are achieved). (For information on the gender-specific selection of subjects, see Appendix A).

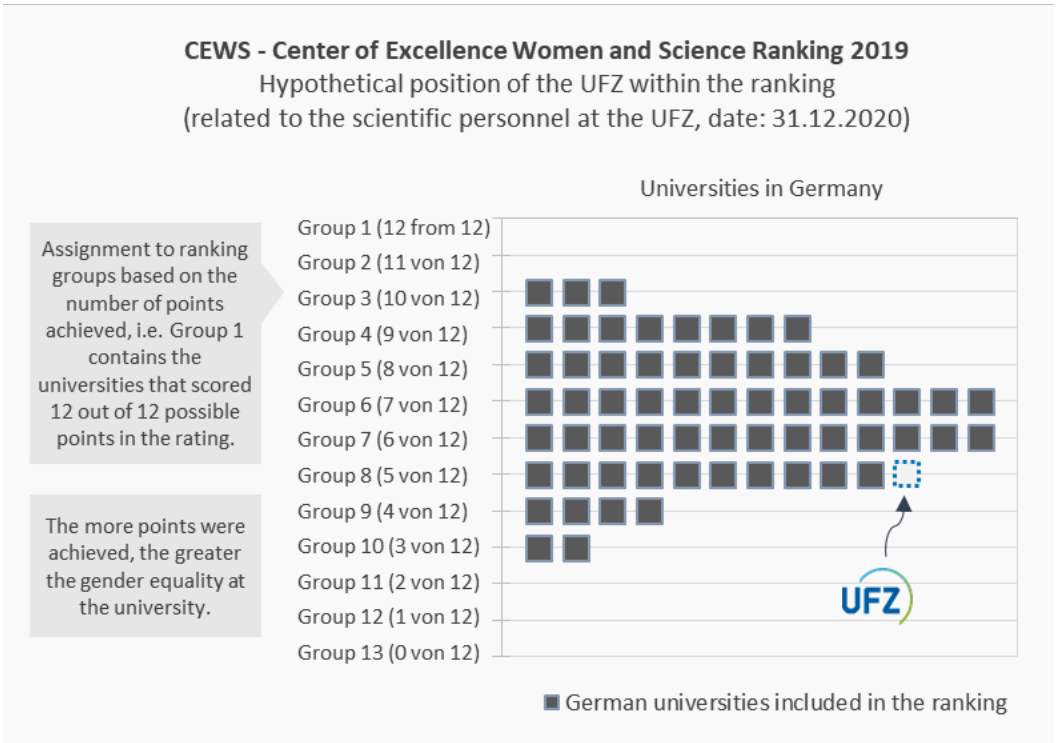

Figure 1 - Distribution of the 63 German universities among the 13 ranking groups in the CEWS University ranking according to gender equality in 2019 and hypothetical position of the UFZ in 2020 (in terms of scientific staff) within the ranking.

The UFZ is a non-university research institution, not a university. However, five of the six criteria can be applied very well to the UFZ. As an approximation to the criterion of scientific qualification after the doctorate, which is less suitable for the UFZ, the criterion of working group leadership could be used. If the UFZ were to be included in the ranking of universities on the basis of the partially adapted criteria, it would receive points as follows and score a total of five out of twelve points, thus being assigned to ranking group 8 (Annex A).

CRITERION FROM THE CEWS UNIVERSITY RANKING	HYPOTHETICAL POSITION OF THE UFZ
→ ***Proportion of women*** **in doctoral studies**	Top group: 2 points
→ ***Proportion of women*** **among working group leaders (adjusted criterion)**	Final group: 0 points
→ ***Proportion of women*** **among academic staff below tenured professorship level**	Final group: 0 points
→ ***Proportion of women*** **professors**	Medium group: 1 point
→ ***Change in the*** **proportion of women among scientific staff**	Medium group: 1 point
→ ***Change in the*** **proportion of women professors**	Medium group: 1 point
Overall score:	5 points (out of 12 possible)

Indicator: Glass Ceiling Index (GCI)

The Glass Ceiling Index (GCI) represents the advancement opportunities of women compared to those of men in an organization. It is calculated from the ratio of the proportion of women in the organisation to the proportion of women in the top management positions in that organisation (She Figures Handbook 2018).

$$GCI = \frac{\text{Proportion of women among all scientists at the Centre (excluding doctoral students)}}{\text{Proportion of women in W2 and W3 professorships at the Center}}$$

If the proportions are equal, the GCI has a value of 1 and this means that women and men have equal opportunities for promotion in the organisation. If the proportion of women in the organisation is greater than the proportion of women in top management positions, the GCI value is greater than 1 and indicates a "glass ceiling", i.e. poorer promotion opportunities in the organisation for women than for men. The opposite applies for a GCI value below 1. The higher the GCI is above 1, the more important it is to reduce the GCI with targeted measures - e.g. standardised application procedures, anti-bias training, individual reconciliation solutions, and targeted personnel development. A GCI smaller than 1 indicates a bias in the chances of promotion in favour of women, whereas the glaring under-representation of women in scientific leadership positions makes GCI values below 1 appear temporarily acceptable.

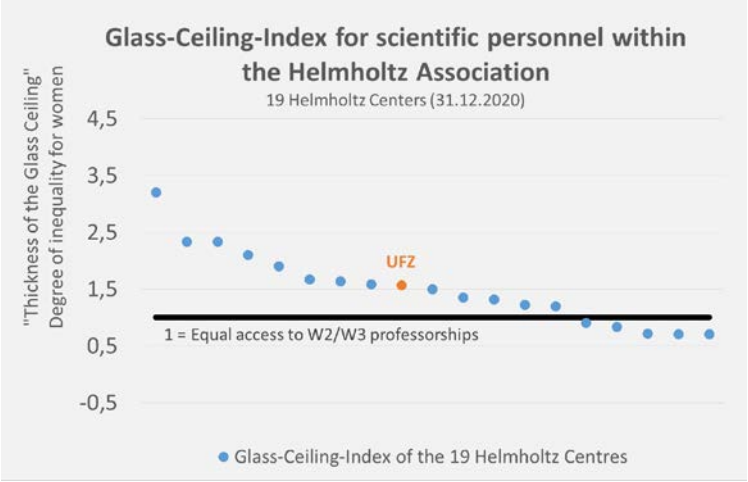

Figure 2 - Glass-Ceiling-Index for the scientific staff of the 19 Helmholtz Centres (31.12.2020), data basis: PAKT reports.

Figure 2 shows the Glass-Ceiling-Index for W2 and W3 professorships at the 19 research centres of the Helmholtz Association. In comparison, the UFZ 2020 ranks 12th with a GCI of 1.6 (Appendix B).

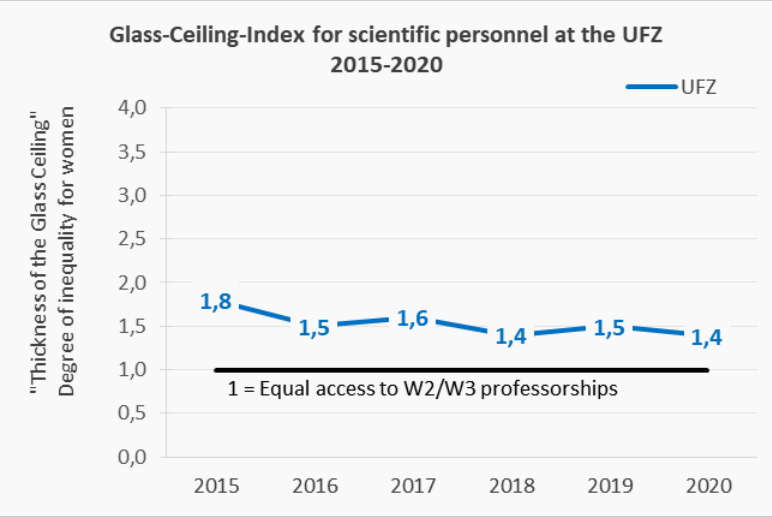

Figure 3 - Glass-Ceiling-Index for the scientific staff of the UFZ 2015-2020, data basis: statistics of the UFZ's personnel controlling for diversity monitoring

Figure 3 shows the Glass-Ceiling-Index for the UFZ over time (2015-2020). At the beginning of the 5-year period, the GCI improved from 1.8 to 1.5, and since then it has shown only minor fluctuations. The slightly different GCI values for the UFZ in Figures 2 and 3 result from slightly different counting methods for scientific staff to date.

Indicator: UFZ Survey

The inclusiveness of an organisation is reflected in the extent to which people in the organisation feel accepted, valued, and supported in developing their talents to the best of their ability and achieving their personal goals. Representative surveys are a suitable instrument for recording and investigating individual perceptions of the inclusiveness of the UFZ culture and the perceived need for action.

Diversity and equal opportunities survey (January 2020)

The one-time survey on diversity and equal opportunities conducted in January 2020 recorded in detail how employees perceive and evaluate various aspects of diversity and inclusion at the UFZ. 400 people (32% of all employees) took part in this survey, including 146 men (37%), 218 women (55%) and 3 people with the gender identity “diverse”. The objectives of the survey were to analyse the current situation from the employees' point of view, to identify potential for improvement, to derive measures, and to further develop the organisational culture.

Perceived inclusiveness of the UFZ culture

The survey captured the perceived inclusiveness of the UFZ culture through 12 items, e.g. "I feel supported by the UFZ environment to achieve my goals." (scale 1=fully disagree, 5=fully agree). The mean value of the items indicates how inclusive the UFZ culture is perceived by a person, i.e. how much a person feels that they belong to and are perceived, supported, and valued at the UFZ.

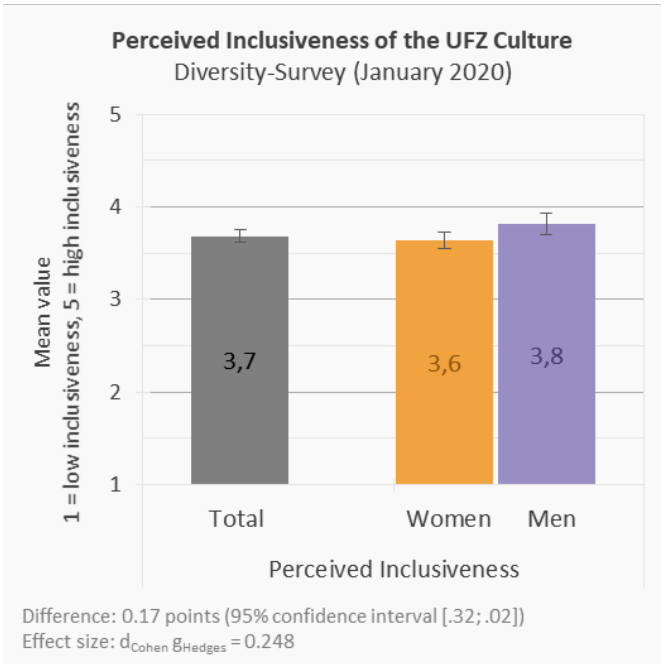

Figure 4 - Perceived inclusiveness of UFZ culture for the total sample (N=400; x=3.7; s=0.7) and separately for women (N=218) and men (N=146).

Inclusiveness at the UFZ was rated rather positively with a low dispersion of answers (x=3.7; s=0.7). Women rated inclusiveness somewhat lower than men. This difference is statistically significant and indicates a small effect (Δ=0.17, 95% CI [.32; .02], d_{Cohen}=0.25).

Perceived equality between women and men

The survey captured perceived equality between women and men through 3 items, e.g. "I think women and men are sometimes treated unequally, e.g. in terms of performance evaluation, participation, career development, and payment." (Scale 1=fully disagree, 5=fully agree). The mean value of the items indicates the extent to which women and men are perceived as being treated equally.

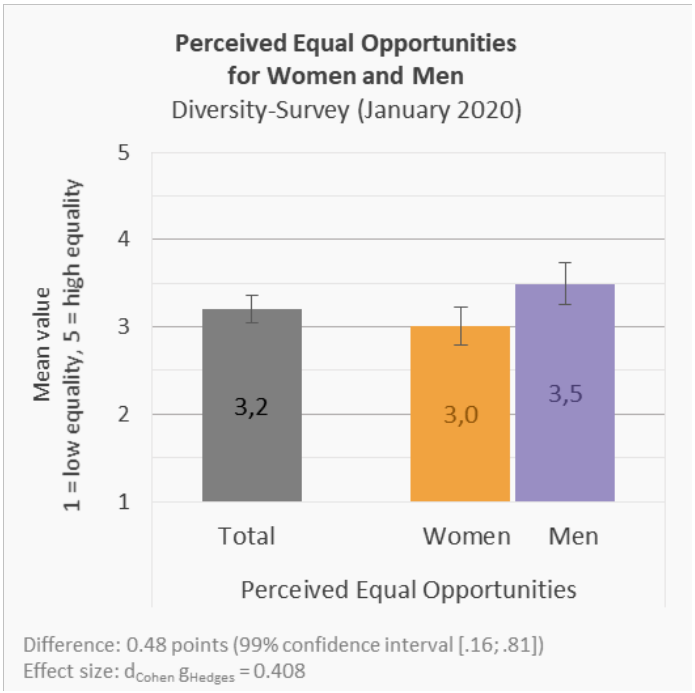

Figure 5 - Perceived equality of women and men for the total sample (x=3.2; s=1.2) and separately for women and men

On average, equality is perceived by women and men as moderate, with a rather wide spread of answers (x=3.2; s=1.2). Women rate equality significantly worse than men. The difference is statistically very significant and indicates a medium effect (Δ=0.5, 99% CI [.16; .81], d_{Cohen}=0.41).

Perceived need for action

The survey covered the extent to which a need for action is seen on various aspects of diversity and equal opportunities at UFZ.

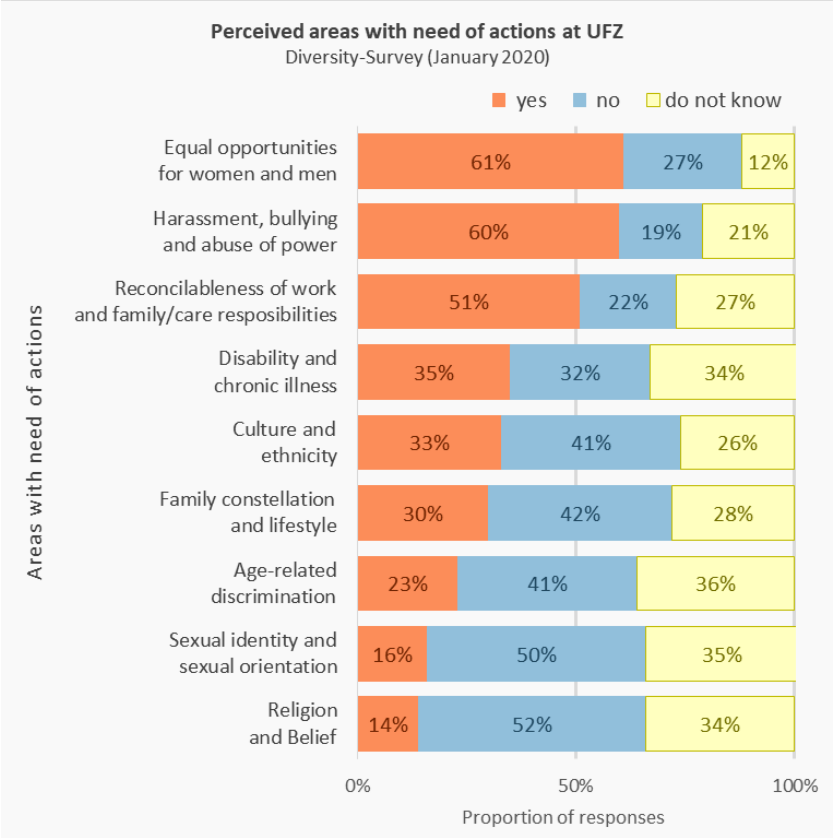

Figure 6 - Perceived need for action on different aspects of diversity and equal opportunities

A clear majority of respondents see a need for action at the UFZ on the topics of equality/gender and bullying/abuse of power. About every second to every third person sees a need for action on the topics of reconcilableness, disability/illness, culture/ethnicity and family constellation/lifestyle. About every fourth person sees the need for action with regard to age-related discrimination and about every seventh person does so with regard to sexual identity/orientation and religion/belief.

The results reflect the scope, not the urgency, of the perceived need for action. Many forms of discrimination or exclusion are hardly recognisable to people who are not affected by them. It may therefore be that for an aspect such as religion/belief, which is rarely immediately recognisable and for which perhaps only a few people are potentially affected by disadvantage or devaluation at the UFZ, only a small proportion of respondents see a need for action. Nevertheless, the need for action for the (few) people affected may be very high.

Other forms of discrimination or exclusion are well visible in public, e.g. the disadvantage of female scientists in their visibility and career development (see indicator career development). Nevertheless, more than one in four explicitly see no need for action with regard to equality and more than one in ten do not know.

UFZ employee survey (December 2020)

The regular UFZ employee survey records how employees perceive and evaluate their work situation and the organisational culture. The most recent UFZ employee survey took place in

December 2020 and for the first time included items on the perceived inclusiveness of the UFZ culture and the assessment of the management's efforts to promote diversity and equal opportunities. 921 people (61% of all employees) took part in this survey, including 424 men (46%), 426 women (46%) and 6 people with the gender identity “diverse”.

Perceived inclusiveness of the UFZ culture

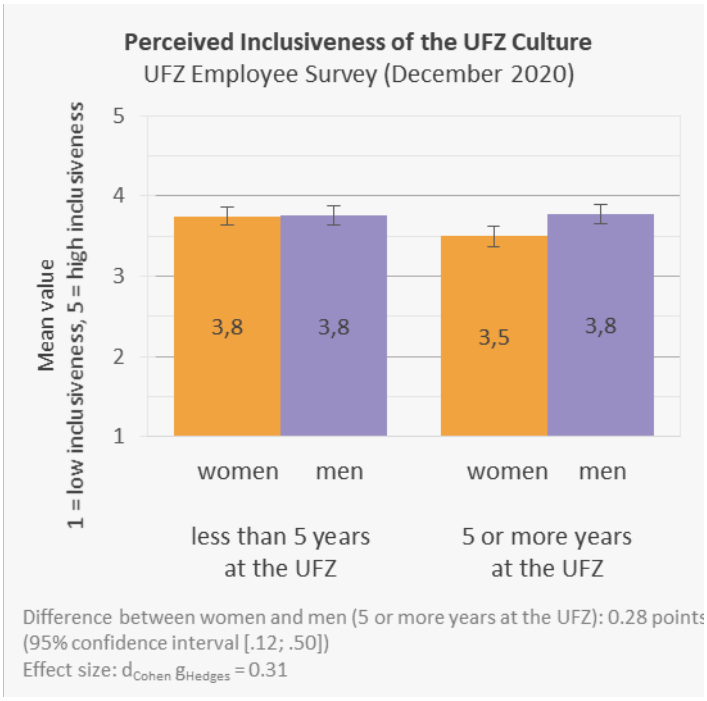

Figure 7 - Perceived inclusiveness of UFZ culture among people working at the UFZ for less than 5 years and those working at the UFZ for 5 or more years, separately for women and men.

In the UFZ employee survey, inclusiveness at the UFZ tended to be rated equally positively by women and men who had been working at the UFZ for less than five years. However, among employees who have worked at the UFZ for five years or more, women perceived the UFZ to be

less inclusive than men. This difference is statistically significant and indicates a small effect (Δ=0.28, 95% CI [.12; .50], d_{Cohen}=0.31).

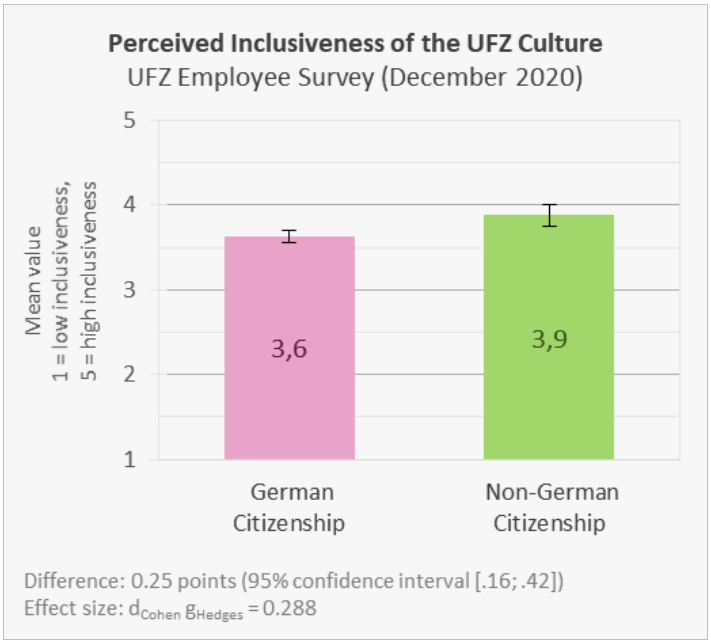

Figure 8 - Perceived inclusiveness of the UFZ culture separated by persons with German and with non-German citizenship

In the UFZ employee survey, inclusiveness at the UFZ is assessed more positively by employees with non-German citizenship than by employees with German citizenship. This difference is statistically significant and indicates a small effect (Δ=0.25, 95% CI [.16; .42], d_{Cohen} =0.29). It is conceivable that the difference could be explained by other variables, for example that employees with non-German citizenship are more likely to be male and more likely to have worked at the UFZ for less than 5 years. These groups of people tend to rate inclusiveness more positively (see Figures 7 and 8). This hypothesis can not be statistically tested on the basis of the data available to us.

Assessment of management's efforts to promote diversity and equal opportunities

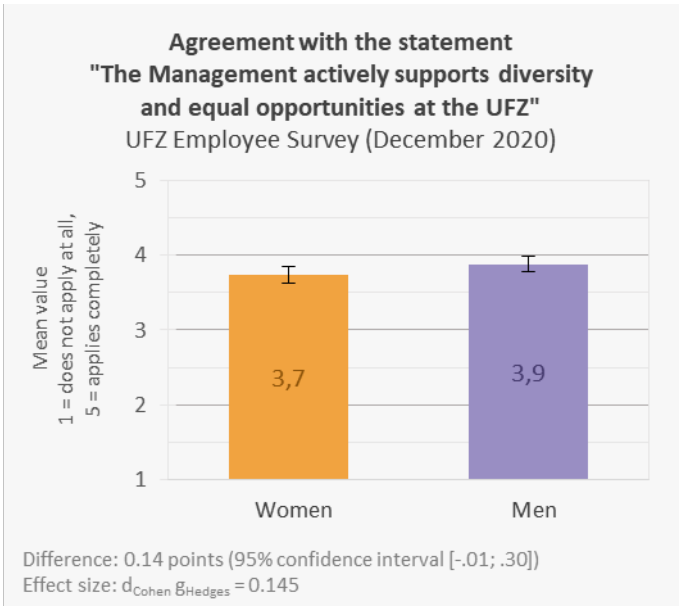

Figure 9 - Agreement to the statement "The management actively supports diversity and equal opportunities at the UFZ" of women and men

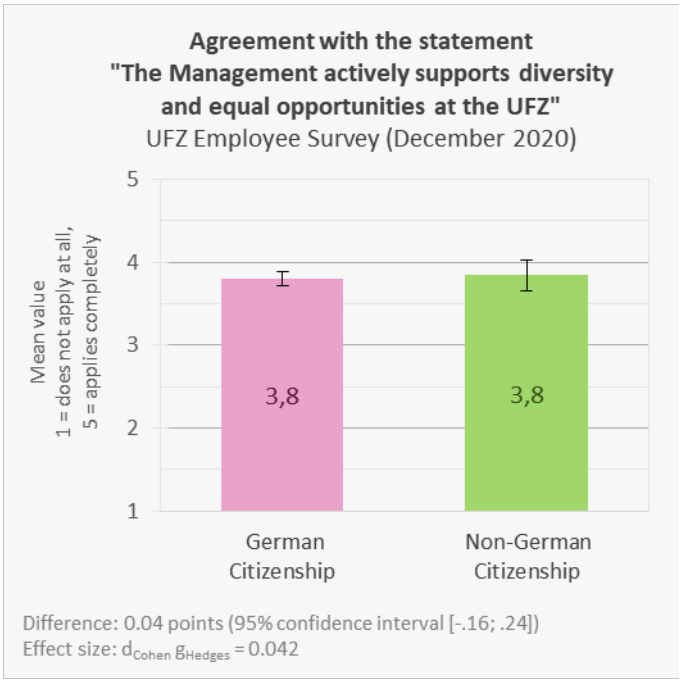

Figure 10 - Agreement to the statement "The management actively supports diversity and equal opportunities at the UFZ" of respondents with German and non-German citizenship

The UFZ employee survey recorded agreement to the statement "The management actively supports diversity and equal opportunities at the UFZ". Women agree less to the statement than men do (Figure 9) (Δ=0.14, 95% CI [-.01; .30], d_{Cohen}=0.15), respondents with German and non-German citizenship are equally more likely to agree to the statement (Figure 10).

Indicator: Applications to the Alexander von Humboldt Foundation "Philipp Schwartz Initiative”

The Alexander von Humboldt Foundation's "Philipp Schwartz Initiative" supports researchers who are no longer able to pursue their scientific activities in their country of origin, e.g. due to persecution and threats. Scientific research institutes can apply for funding through the "Philipp Schwartz Initiative" to enable such persons to find employment. In addition, the programme is also an instrument that institutes such as the UFZ can actively use to strengthen the diversity of perspectives and internationalisation of their research.

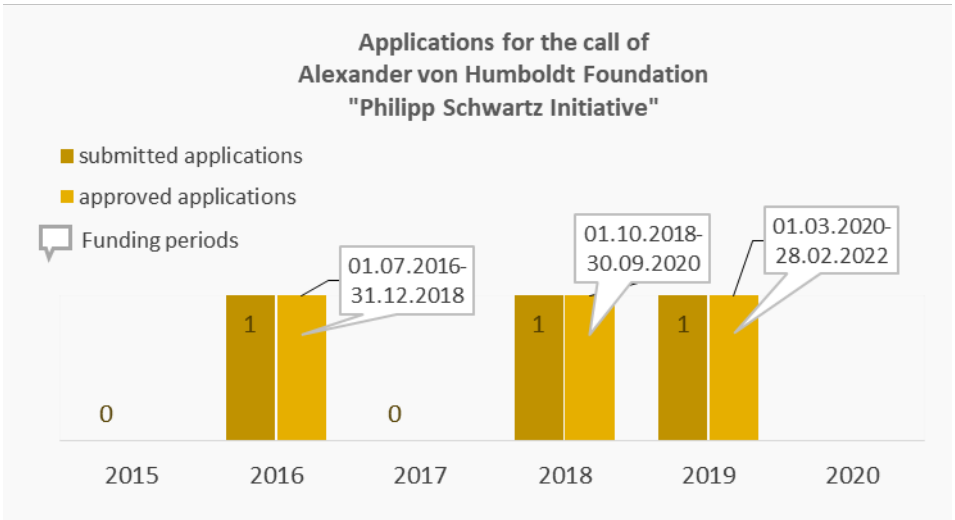

Figure 11 - Applications to and funding by the Alexander von Humboldt Foundation "Philipp Schwartz Initiative" (period 2015-2020)

Figure 11 shows the applications submitted by the UFZ to the "Philipp Schwartz Initiative" in the period from 2015 to 2020. In each of the years 2016, 2018 and 2019, one application was submitted and received a positive decision.

Area: Recruitment and career development

Personnel selection and career development are areas in which inequalities become eminently apparent. Personal characteristics such as gender, nationality, or social origin play a particularly important role in selection procedures and are often the starting point for structural discrimination and exclusion mechanisms. The reason for this is that decisions are influenced by a multitude of factors and processes, most of which we are not even aware of. For example, we prefer people who are similar to us and with whom we can identify well. With criteria-based selection and evaluation forms, the influence of distorting factors can be minimized and, thus, unconscious exclusion mechanisms and discrimination can be counteracted.

Indicator: Application-Interview-Hiring

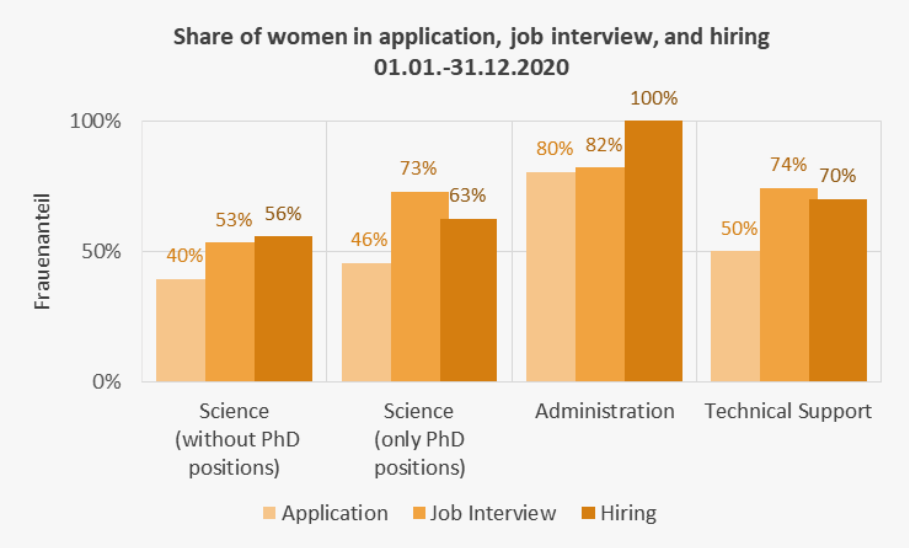

Figure 12 - Proportions of women in applications, interviews and hiring in science, administration, and technical support (1.1.-31.01.2020)

Personnel selection is an area where unintended bias is particularly evident. The indicator shows the respective proportion of women over the three-stage process of *application-interview-hiring* in the fields of science, administration, and technical support. The proportion of women in *applications* ranges from 46% (PhD positions) to 50% (technical support). From *interview* to *hiring*, the proportion of women remains constant (56-63%) in the field of science, increases to 70% in the field of technical support, which includes some assistant and secretarial positions, and rises to 100% in the field of administration. The data suggest that there has been no systematic discrimination against women in the selection process. Rather, care must be taken to ensure that there is no unintentional preference for women in the areas of administration and technical support.

Indicator: Language of job postings

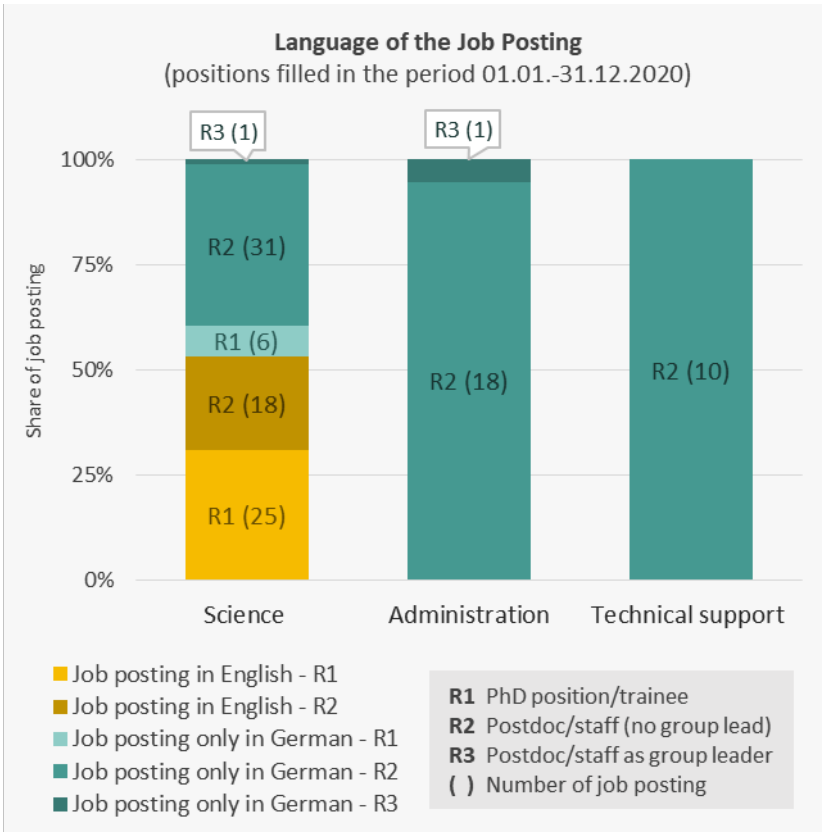

Figure 13 - Language of job postings for positions that were filled between 01.01.-31.12.2020

Figure 13 shows that jobs in the areas of administration and technical support were advertised exclusively in German. In the field of science, 53% of jobs were advertised only or also in English and 47% exclusively in German. However, only advertisements for early career stages (PhD positions, Postdoch positions without group lead) were published in English. Postings exclusively in German restrict the applicant pool and contribute less to the diversity of perspectives at the UFZ (see Figure 14).

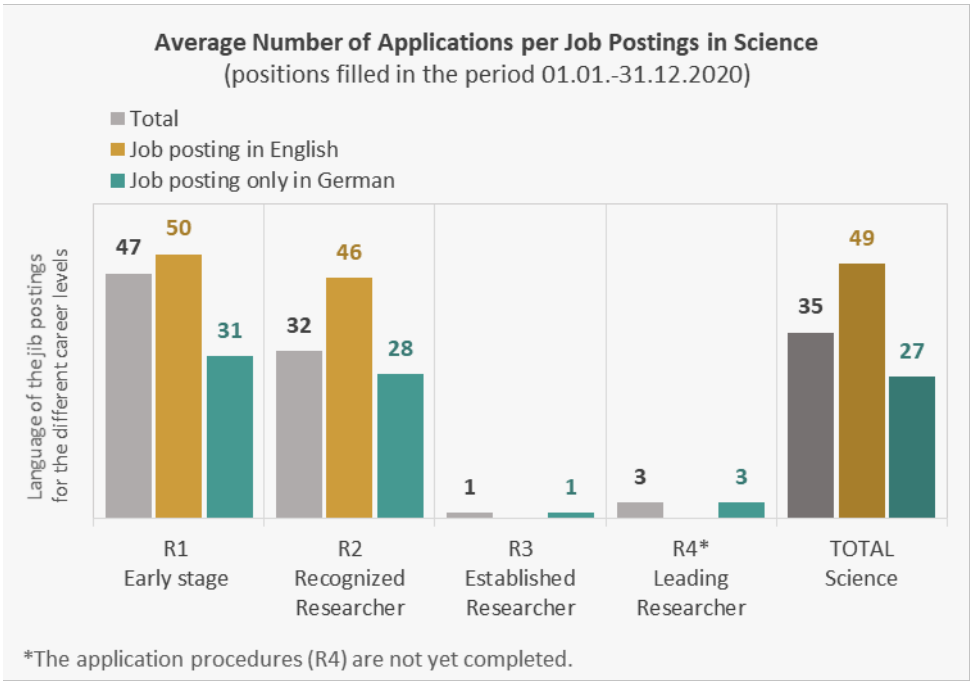

Figure 14 - Average number of applications per vacancy in science for filled posts in the period 01.01.-31.12.2020).

Figure 14 shows the average number of applications per job posting, separated for job postings only or also in English and exclusively in German. Significantly more applications are received for scientific job postings only or also in English than for scientific job postings in German only.

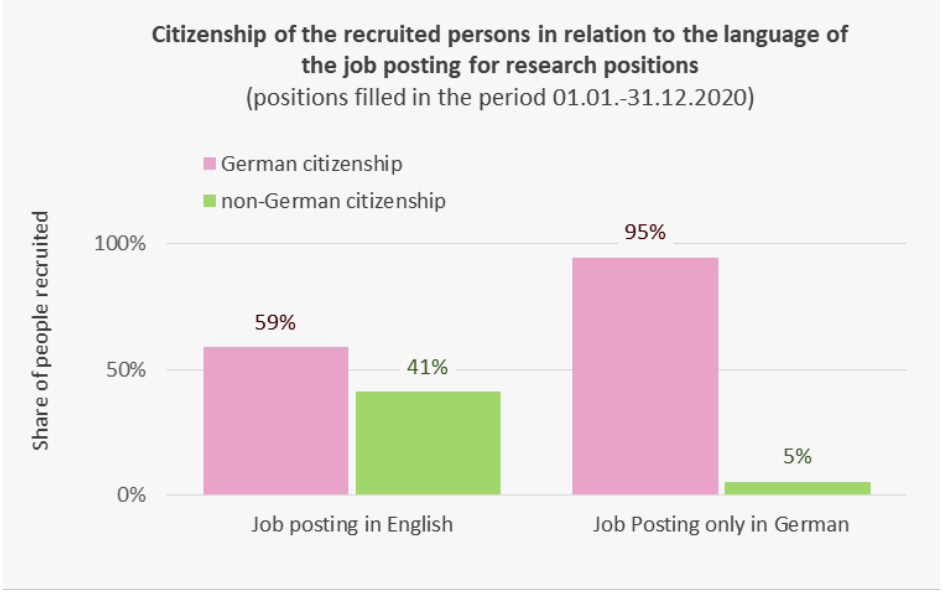

Figure 15 - Citizenship of recruits separated by language of science job postings (for posts advertised and filled in the period 01.01.-31.12.2020).

Figure 15 shows the proportion of persons with German and non-German citizenship who were recruited, broken down by the language of the job posting in the field of science. 41% of the positions advertised only or also in English were filled by persons with non-German citizenship. If

the vacancy was advertised exclusively in German, only 5% of the vacancies were filled by persons with non-German citizenship. Figures 14 and 15 illustrate the importance of the language of job postings for the internationalisation of the UFZ and the recruitment of international professionals.

Indicator: Career development

Unequal career developments are both a consequence and a cause of unequal opportunities. The following five figures show the development of the shares of women and of people with non-German citizenship along the career stages in science and administration for the years 2015-2020.

Proportion of men and women in science

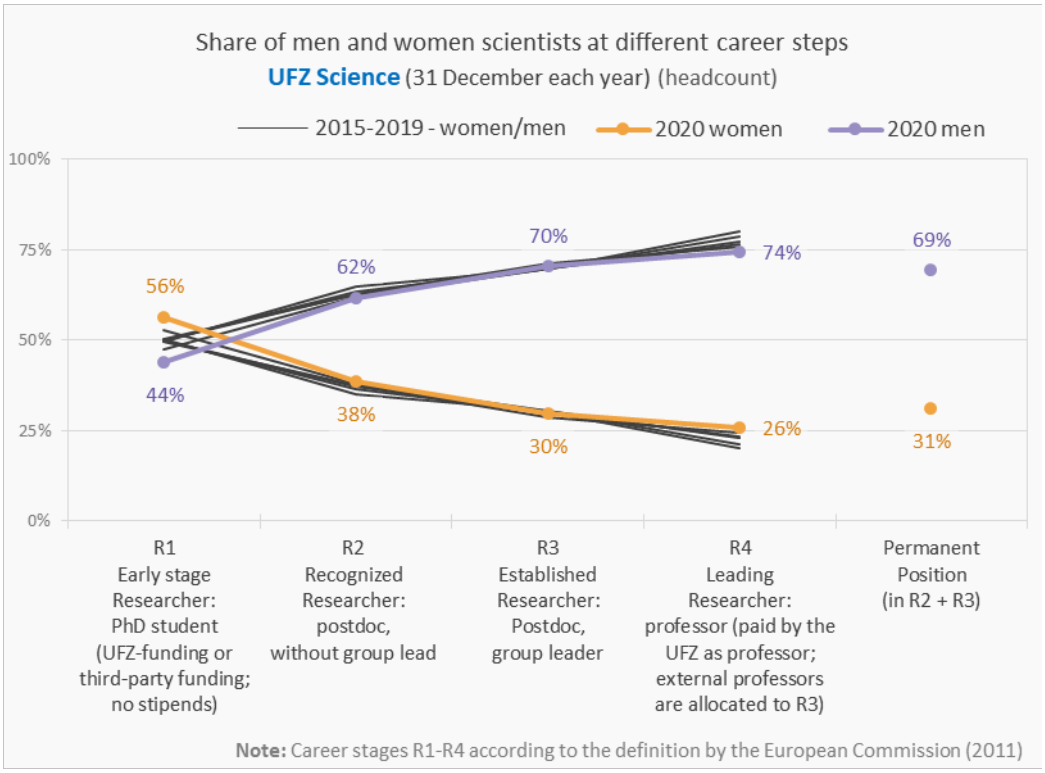

Figure 16 - Proportion of men and women along the career stages in science (2015-2020)

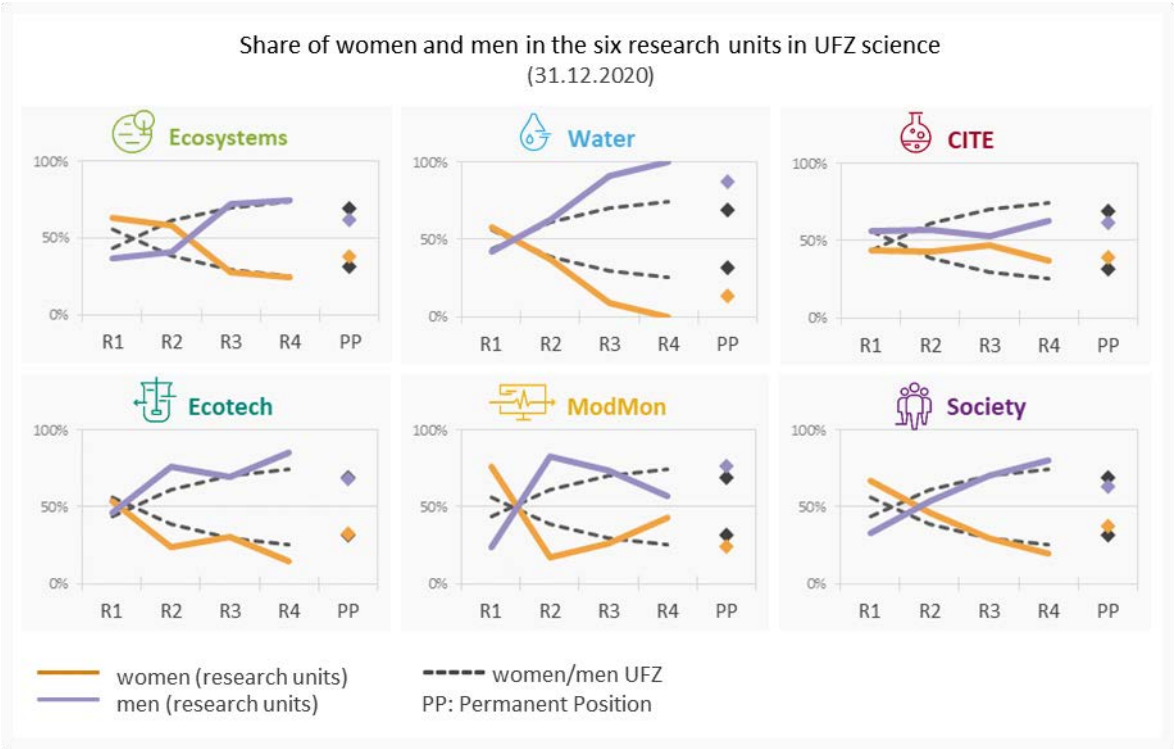

Figure 17 - Proportion of men and women along the career stages in the six research units in UFZ science (31.12.2020)

Figure 16 shows the proportion of women and men in science across four career stages (PhD position, postdoc without group leadership, postdoc with group leadership, professorship). The phenomenon of the decrease of the proportion of women with each further career stage is in gender research referred to as the "leaky pipeline", the "gender scissors" or the cascade ("waterfall" model).

What is remarkable is not only the extent, but above all the stability of the leaky pipeline in recent years: since 2015, there has been no significant change in the development of gender shares. However, Figure 17 shows that the leaky pipeline does not follow a law that cannot be influenced, but can be shaped and changed: in the six thematic areas in UFZ science, the development of women's and men's shares along the career stages is very different.

In the light of a steadily increasing number of outstandingly qualified women at all levels in the overall scientific landscape (GWK 2021) and a multitude of gender equality policies, the persistent and stable phenomenon of the leaky pipeline points to persisting structural inequalities for men and women. These structural inequalities cannot be attributed exclusively to the challenge of reconciling paid work and care work, since (1) the leaky pipeline also applies to women without children or care responsibilities, (2) the role models of younger people in particular are changing measurably, and (3) at least at the UFZ, the reconcilableness of family and work is evaluated positively both by employees and by the audit berufundfamilie.

The career paths in the field of administration show clearly varying gender ratios across the years and career stages, and almost gender parity for 2020 (Figure 18). They illustrate that this is not a universal problem of career opportunities, but that career paths in science are marked by specific exclusion mechanisms and discrimination (Lerchenmueller and Sorenson 2018; Abramo et al. 2016; Avolio et al. 2020; Begeny et al. 2020; Brock 2018; Hruby 2019; Mengel et al. 2019; Nature

Editorials 2018; National Academies of Sciences, Engineering, and Medicine 2018; Roper 2019; Zhou et al. 2018; Begeny et al. 2020; Bian et al. 2018; Borsuk et al. 2009; Obertreis 2021; Régner et al. 2019) and in this respect differ markedly from career paths in administration. It remains a key task for the UFZ in terms of equal opportunities to ensure a transparent and systematic - and thus equal and gender-equitable - career development in science.

Proportion of men and women in administration

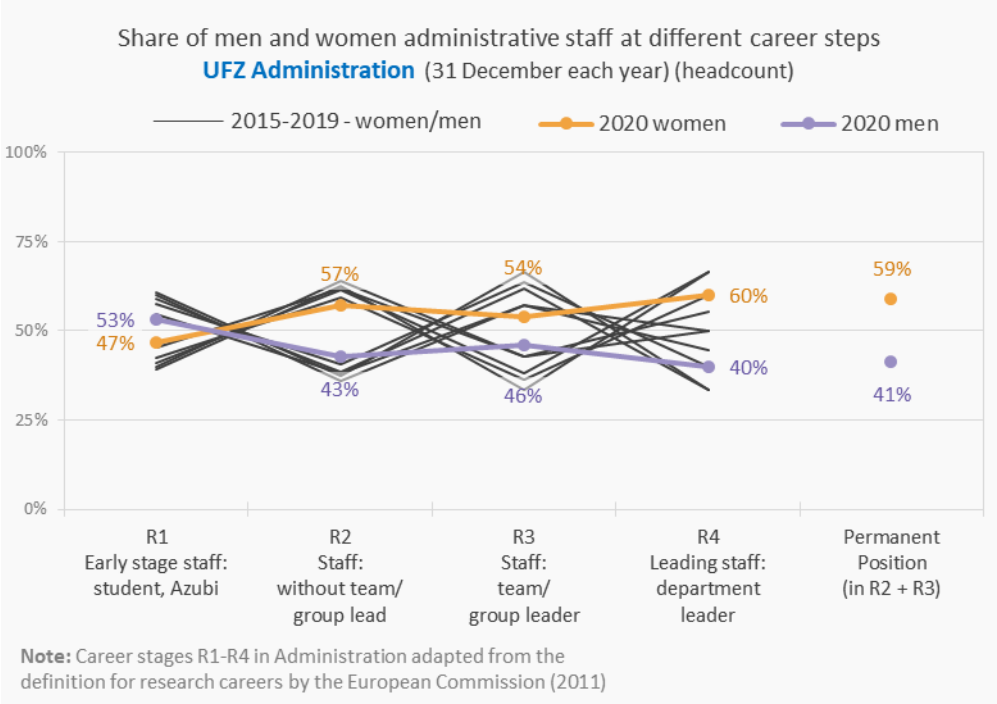

Figure 18 - Proportion of men and women along the career stages in the administration (2015-2020)

The indicator shows the proportion of women and men in the area of administration across four career levels (trainees/students, employees without group leadership, group/team leadership, department leadership). The gender proportions vary approximately equally distributed between 40%-60%, whereby the proportion of women for 2020 is greater than the proportion of men at all career levels after training (R1).

Proportions of persons with and without German citizenship in science

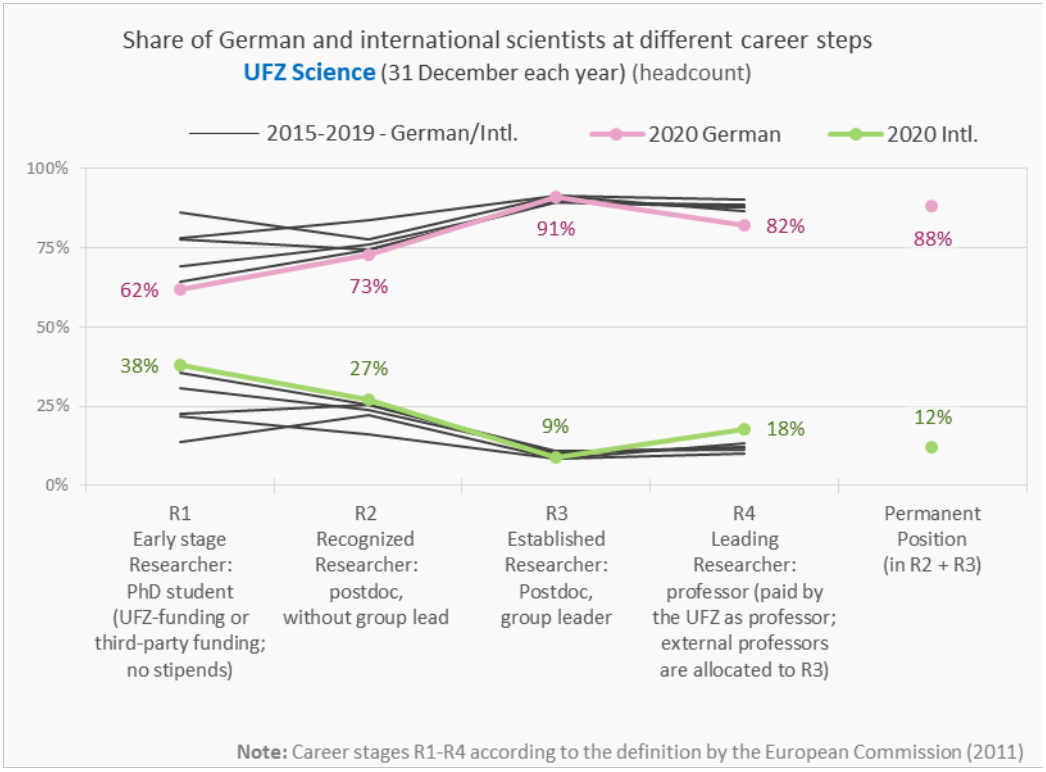

Figure 19 - Proportion of persons with German and non-German citizenship along the career stages in science (2015-2020)

Figure 19 shows the proportion of researchers with German and non-German citizenship across four career stages (PhD position, postdoc without group leadership, postdoc with group leadership, professorship). The proportion of international researchers has grown significantly since 2015 in the early career stages (PhD position, postdoc); in 2020 it was 38% for PhD positions and 27% for postdocs. However, this share, which has increased compared to previous years, decreases again with the career step of group leadership. This may be due to a time lag, e.g. because of lower turnover at higher career stages. Nevertheless, care should be taken to ensure that a decrease in the proportions is not unintentionally due to national affiliation or associated further characteristics such as language skills and cultural background.

Proportions of persons with and without German citizenship in administration

Figure 20 - Proportion of persons with German and non-German citizenship along the career stages in the administration (2015-2020)

Figure 20 shows the proportion of employees with German and non-German citizenship in the field of administration across four career levels (trainees/students, employees without group leadership, group/team leadership, department leadership). The proportion of employees with non-German citizenship is extremely low in administration (max. 3% for employees without group leadership). There are no persons with non-German citizenship in leadership positions. There is much to suggest that the internationality of the UFZ should be reflected in both science and administration, e.g. through the implementation of multilingualism, the consideration of different perspectives for administrative processes, the cooperation with international scientists and research institutions, and increased awareness of the challenges of working in international teams.

Indicator: Target agreement: cascade model and target corridors in science

Those who want to change need clear, ambitious, and realistic goals. For the field of science, the Joint Science Conference (GWK) has agreed that the non-university research institutions should formulate targets for the proportion of women at different leadership levels and for different pay groups.

The target formulation is based on the cascade model: since the proportion of women decreases with each management level, the target for the proportion of women at a leadership level should at least correspond to the proportion of women at the leadership level below. At the same time, the achievement of this target is limited by the number of positions at a leadership level that are to be filled during the target period. Whether a target is ambitious is therefore measured less by the formulated target quota at a certain leadership level, but rather by the target corridor, i.e. the targeted proportion of women to fill vacant positions at that leadership level.

The upper limit of the target corridor corresponds to the proportion of women that would result if all vacant positions were filled with women; the lower limit of the target corridor corresponds to the proportion of women that would result if all vacant positions were filled with men. The target for the proportion of women at a leadership level can be set within this corridor.

The Helmholtz Association's Equal Opportunities Officers criticise the fact that failure to achieve the agreed targets does not entail any significant consequences and - even more importantly - that the actual achievement of the targets is not rewarded. So far, the cascade targets, as important as they are in terms of content, remain ineffective because they remain largely non-binding.

Cascade: leadership level

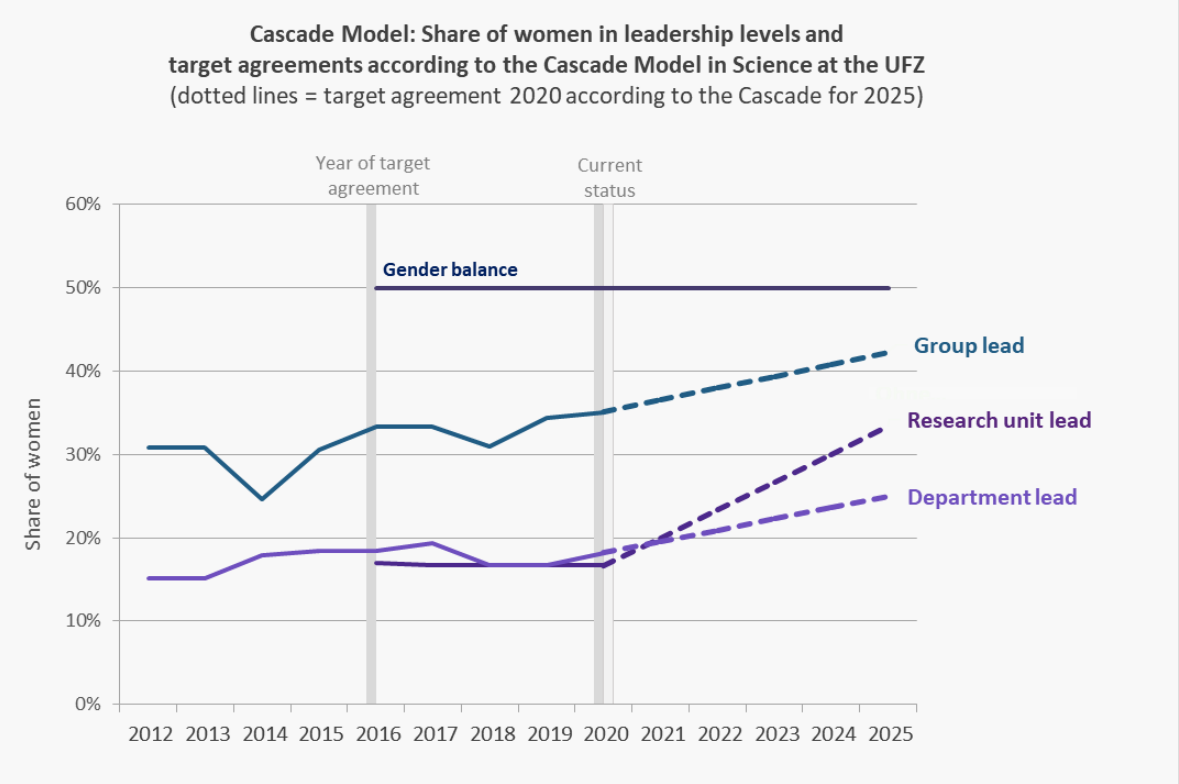

Figure 21 - Cascade: Target and actual share of women in leadership levels according to the cascade model 2020-2025 in science

According to the cascade model, the UFZ targets for the proportion of women as leader of research units, departments, and working groups by 2025 are shown in Figure 21. Since the first target was formulated in 2016, a slight upward trend has only been discernible for working group leadership; the proportion of women in research unit and department leadership has stagnated since then, while there has been no new appointments in reseach unit leadership since 2016. However, at least two new appointments are expected for research unit leadership by 2025, at least one of which should be filled by a woman in order to achieve the cascade target.

Cascade: Pay group

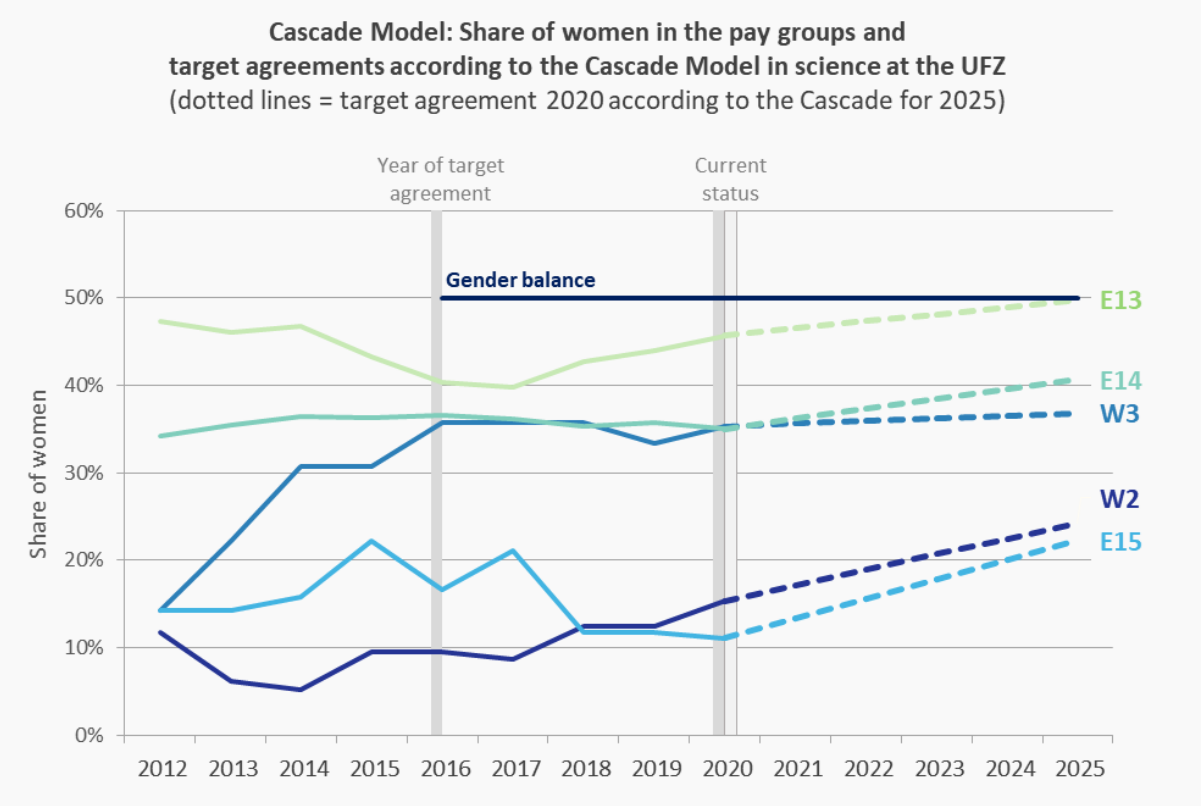

Figure 22 - Cascade: Target and actual proportion of women in the pay groups according to the cascade model 2020-2025 in science

Just as for the leadership levels, cascade targets have also been agreed for the various pay groups in science by 2025. Figure 22 shows the development of the proportion of women in the pay groups E13 to E15 and grade groups W2 and W3. Between the time of the agreement in 2016 and the current status in 2020, different developments can be observed in the various groups: In pay and grade groups E13 and W2, the proportion of women has improved since 2016, but the trend must continue just as strongly, particularly in grade W2, in order to achieve the cascade target by 2025. In the E14 and W3 groups, the proportion of women has remained constant since 2016, and a higher proportion of women has been agreed as a target by 2025 only for the E14 group. In pay group E15, the proportion of women has fallen from 17% to 11% since 2016. In this pay group, some retirements and only a few appointments are expected in the target period, so that at least one of these should be filled by a woman in order to achieve the cascade target. The figure also shows that even if all cascade targets were achieved, gender parity would only be reached in the lowest pay group (E13).

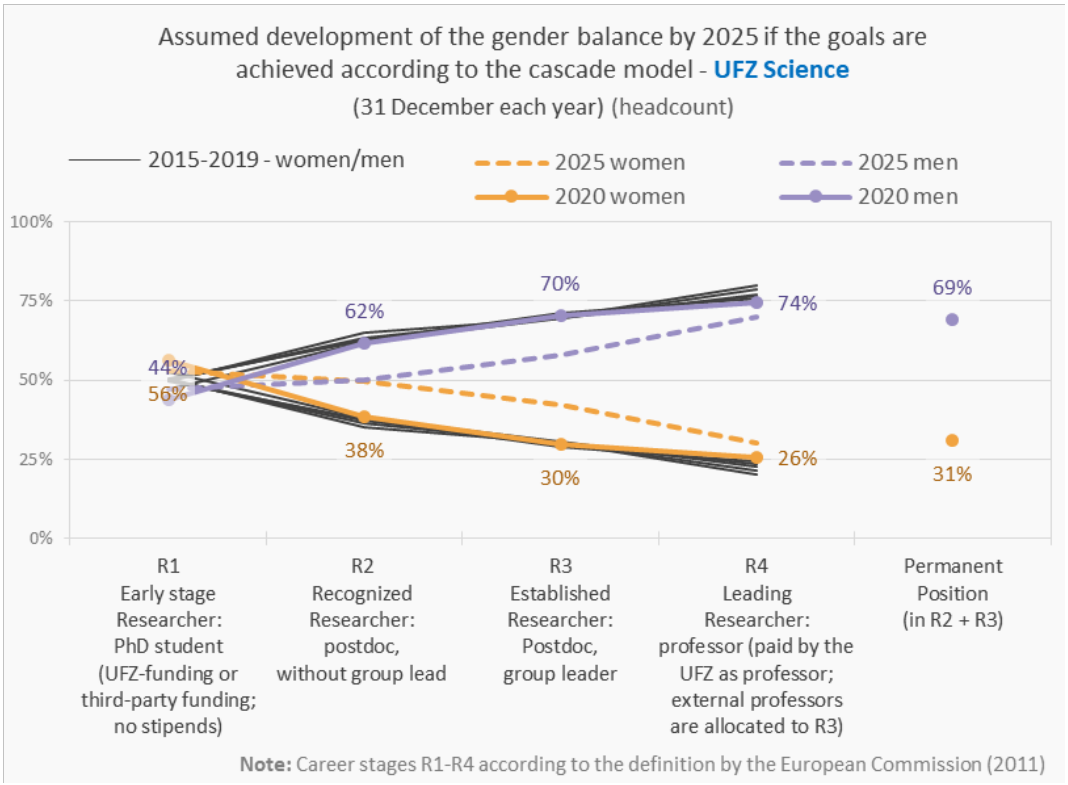

Figure 23 - Assumed development of the gender balance by 2025 if the targets are achieved according to the cascade model

Figure 23 shows the assumed development of the proportions of women and men along the career stages in science if the UFZ goals are achieved according to the cascade model (dashed line). In comparison, the current gender balance and that for the years 2015-2019 are shown (solid lines). If the cascade targets were achieved, gender parity would be realised for the postdoc career stage (R2) and the proportions of men and women at the other career stages would have converged. For professorships (R4), the gender ratio would still be approximately one-third women to two-thirds men. This shows, on the one hand, the inertia of the change processes, and on the other hand, that changes should be driven forward at least as progressively as the UFZ's cascade goals specify.

Target corridor for grade W3

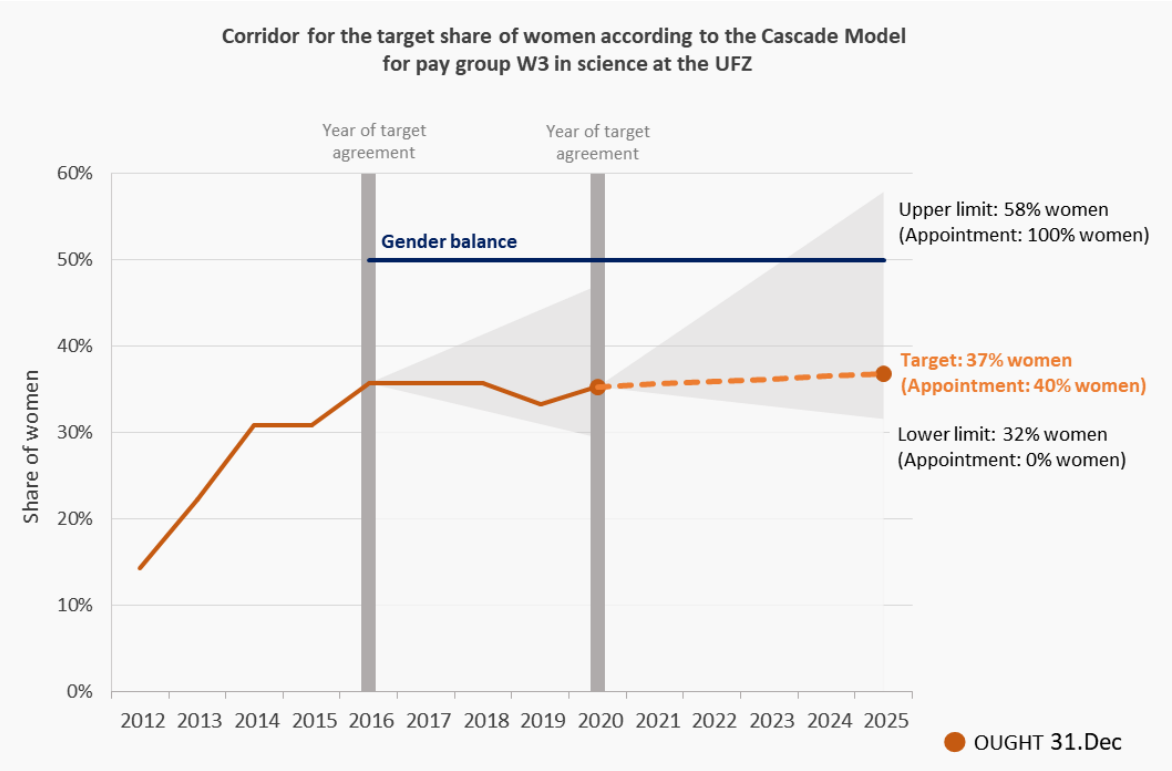

Figure 24 - Target corridor for the proportion of women according to the cascade target for grade W3

Figure 24 shows the development of the proportion of women in grade W3 together with the cascade targets agreed in 2016 for 2020 and 2020 for 2025 (OUGHT), and the respective target corridor. The target corridor for 2020 was very narrow, as there were few new appointments to be filled; the target was achieved with the appointment of two female scientists. Within the target corridor by 2025, at least 40% of the new positions should be awarded to women, which would mean that in 2025 a 37% share of W3 professorships would be held by women. In view of the long-term nature of appointments and the severe under-representation of women, a target for appointments of at least 50% would be desirable.

Target corridor for grade W2

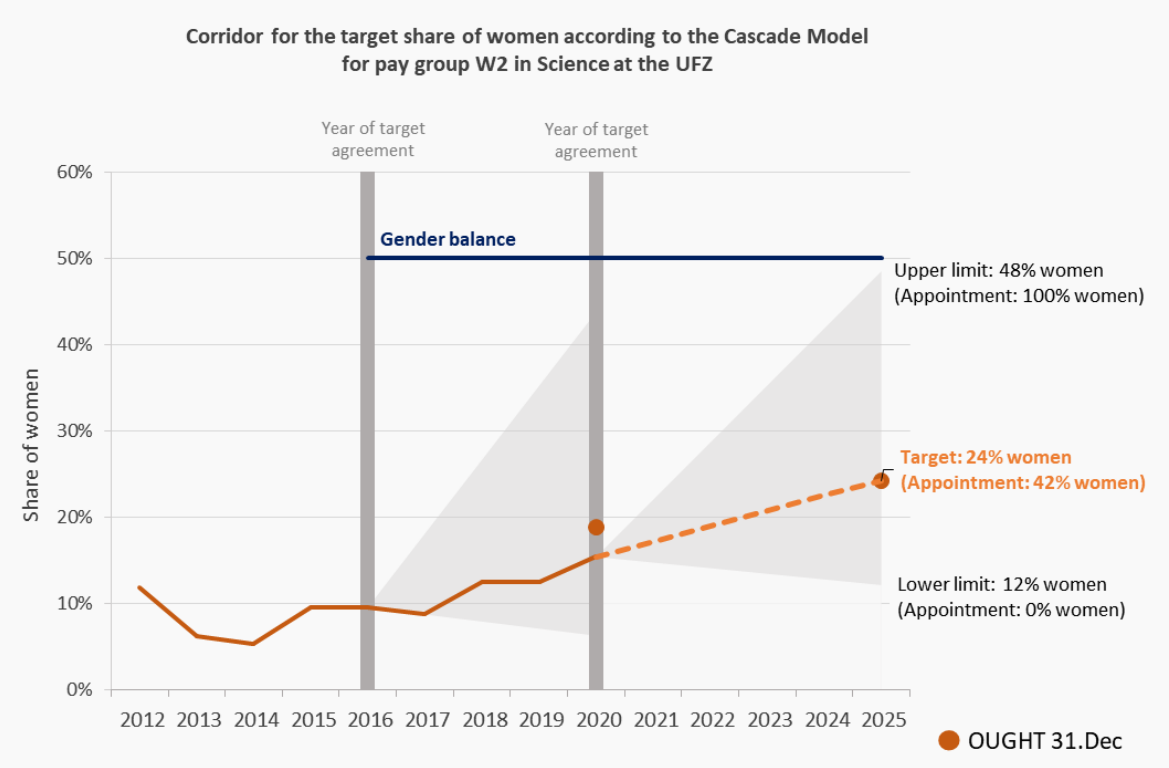

Figure 25 - Target corridor for the proportion of women according to the cascade target for grade W2

Figure 25 shows the development of the proportion of women in grade W2 together with the cascade targets agreed in 2016 for 2020 and 2020 for 2025 (OUGHT), and the respective target corridor. The target corridor for 2020 was very broad, i.e. there were relatively many appointments in the period 2016-2020. Of these, 30% were to be filled by women. This target was not ambitious, especially for W2 professorships and at such rather low starting level. Despite the conservative target, it has not been achieved to date. The target by 2025 envisages a 42% share of women in new appointments, which would mean a 26% share of women in W2 professorships in 2025. In view of the long-term nature of appointments and the severe under-representation of women, a target of at least 50% for new appointments to vacant positions would have to be aimed for.

Target corridor for the 1st leadership level (research unit lead)

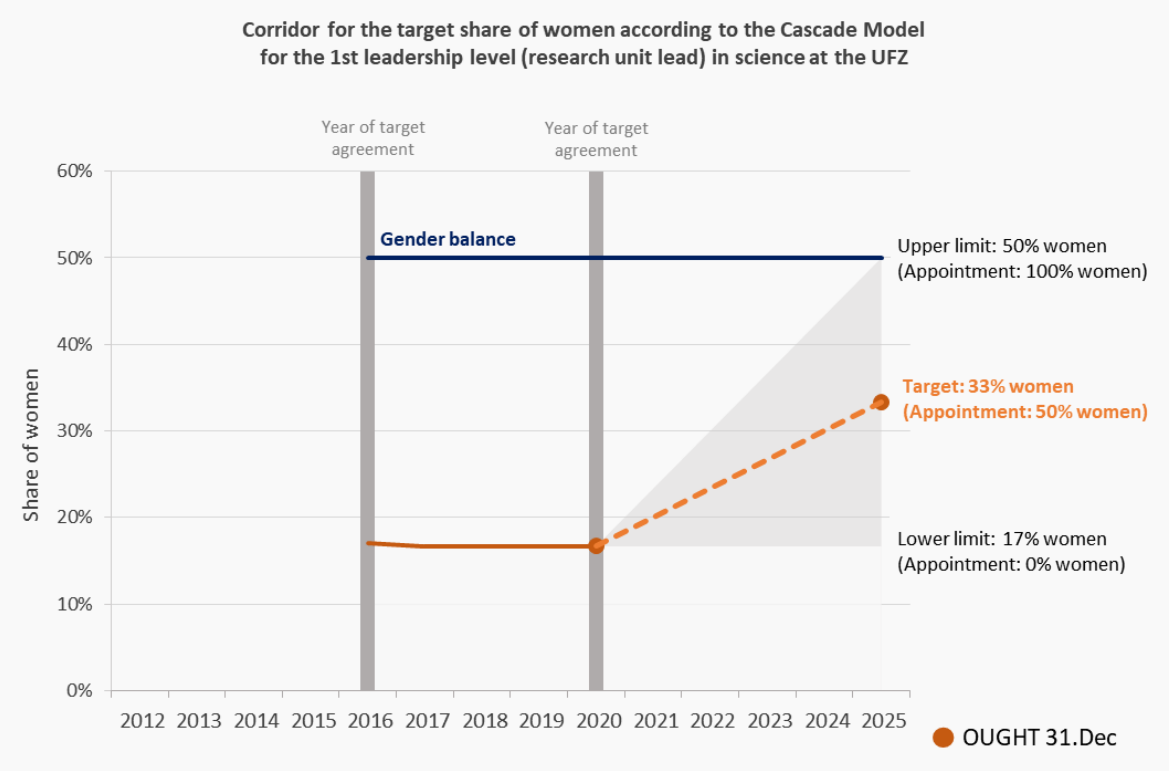

Figure 26 - Target corridor for the proportion of women according to the cascade target for the 1st leadership level (research unit lead)

Figure 26 shows the development of the proportion of women for the 1st leadership level (research unit lead) together with the cascade targets agreed in 2016 for 2020 and 2020 for 2025 (OUGHT), and the respective target corridor. The target for 2020 did not provide for any change in the proportion of women as no new appointments were expected. The target agreed for by 2025 envisages a 50% share of women in new appointments which would result in a 33% share of women at research unit leadership level in 2025.

Target corridor for the 2nd leadership level (department lead)

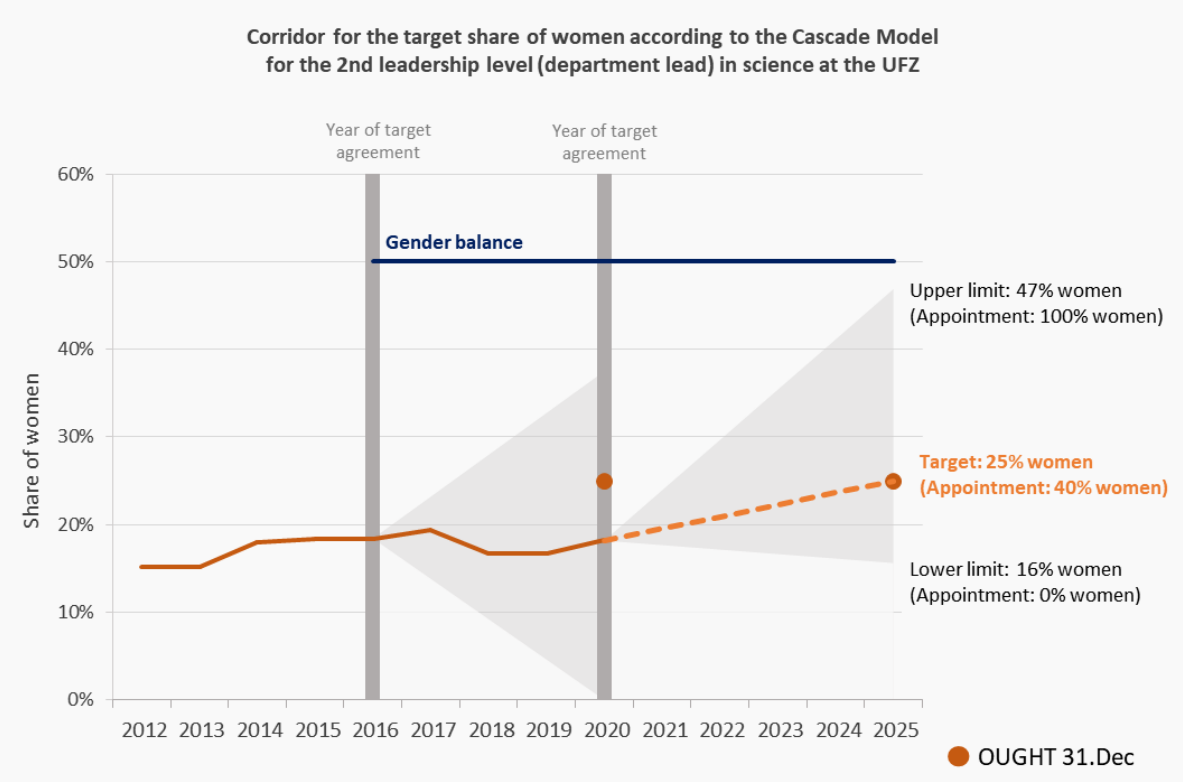

Figure 27 - Target corridor for the share of women according to the cascade target for the 2nd leadership level (department lead)

Figure 27 shows the development of the proportion of women for the 2nd leadership level (department lead) together with the cascade targets agreed in 2016 for 2020 and 2020 for 2025 (OUGHT), and the respective target corridor. Unlike appointments, where the appointing universities have a decisive codetermination, the appointment of department leaders is the exclusive responsibility of the UFZ management, with advice from the Scientific Advisory Board. In 2016, the very ambitious goal of appointing women to four out of five vacant positions was formulated. This goal has clearly not been achieved to date, and the proportion of women at department head level has remained unchanged. The agreed target for 2025 is to fill at least 40% of vacant positions with women which would bring the proportion of women to 25% in 2025. In view of the severe under-representation of women, a target of at least 50% for appointments at department head level would have to be aimed for.

Target corridor for the 3rd leadership level (group lead)

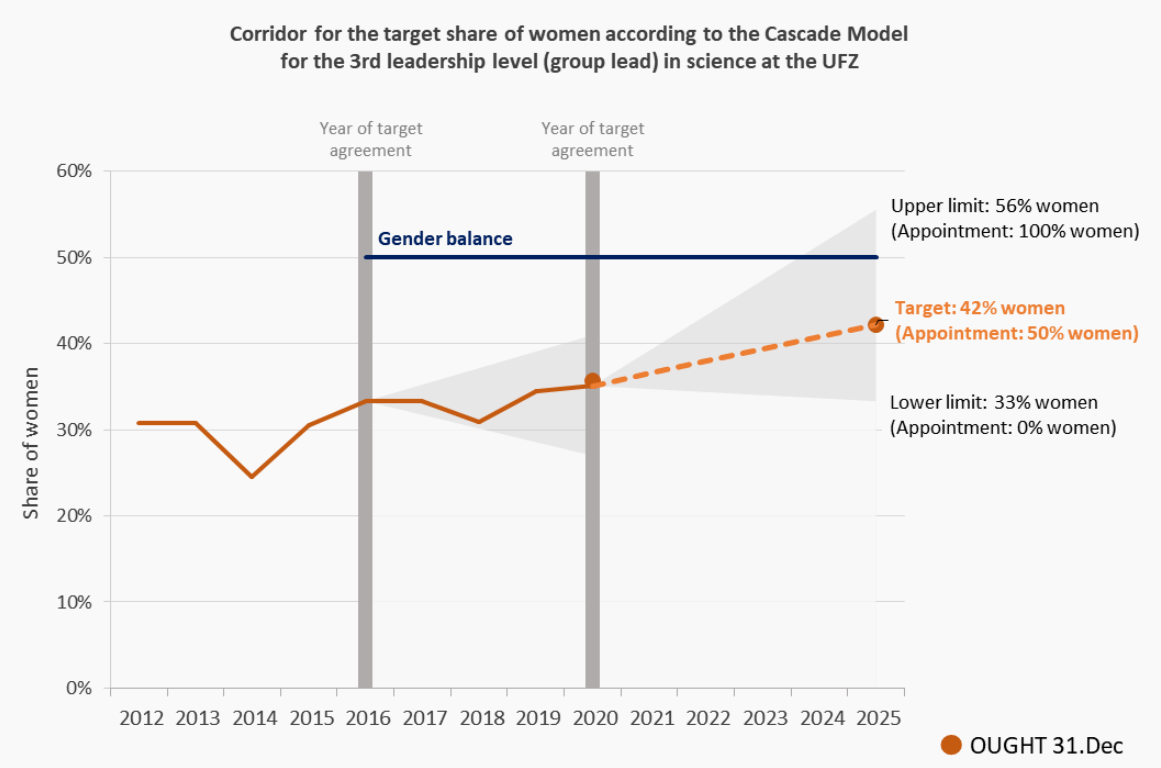

Figure 28 - Target corridor for the proportion of women according to the cascade target for the 3rd leadership level (group lead)

Figure 28 shows the development of the proportion of women for the 3rd leadership level (group leaders) together with the cascade targets agreed in 2016 for 2020 and 2020 for 2025 (OUGHT), and the respective target corridor. Despite a very narrow target corridor for the 2020 cascade target, it was possible to achieve the target and increase the proportion of women among working group leadership. The target agreed for 2025 strives for at least 50% of the appointments at group leadership level to be filled by women, which would result in a share of women of 42% in 2025.

Target corridors for pay groups E13-15

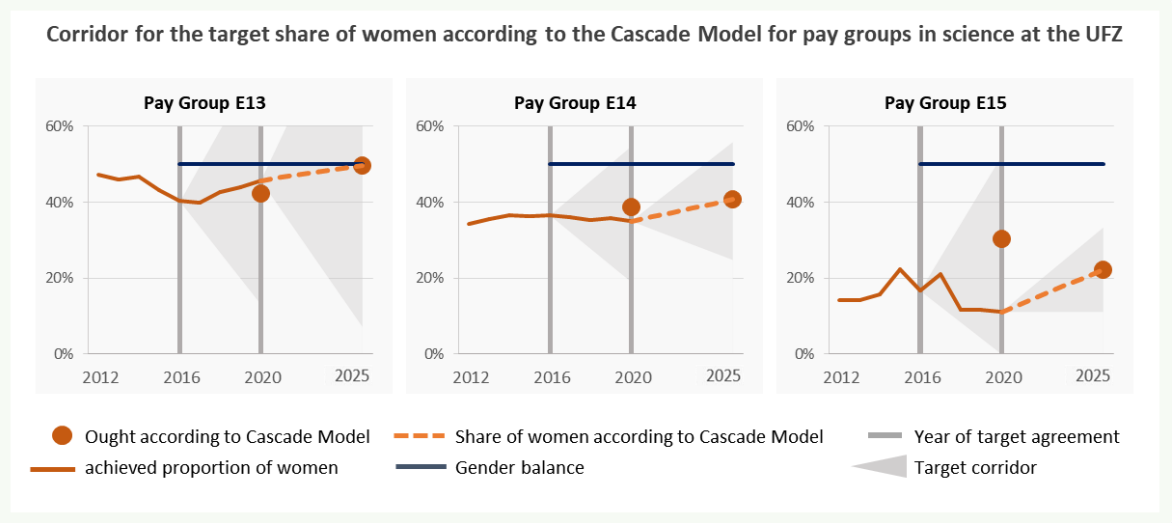

Figure 29 - Target corridor for the proportion of women according to the cascade model for the pay groups E13, E14, E15

Figure 29 shows the development of the proportion of women for the pay groups E13, E14, E15 together with the cascade targets agreed in 2016 for 2020 and 2020 for 2025 (OUGHT), and the respective target corridors.

For pay group 13, the target for 2020 has been achieved, and the agreed target for 2025 is to fill at least 50% of vacant positions with women, which would result in a 50% share of women in 2025.

For pay group 14, the target for 2020 was not achieved; the proportion of women remained constant compared to 2016. The agreed target for 2025 is to fill at least 51% of vacant positions with women, which would result in a 41% share of women in 2025.

For pay group E15, the target for 2020 was clearly not achieved, and the proportion of women fell sharply compared to 2016. However, there has been a significant reduction of positions in this pay group with very few new appointments, probably only two. The agreed target for 2025 is therefore to fill at least one of the two vacanct positions with a woman in order to achieve the cascade target of 22%.

Indicator: Project management in science

Not only are women underrepresented in the scientific staff of many departments, but in addition, the available women are underrepresented in the project management of research projects. In other words, women are less often represented in project management than the proportion of women in the department would suggest. While there may be good reasons for the departments and individuals, the overall indicator for the UFZ shows a systematic disadvantage of female scientists with regard to project leadership. Project leadership is a good opportunity to present and develop expertise and competence. It is an important step in a scientific career and should be made accessible on an equal basis.

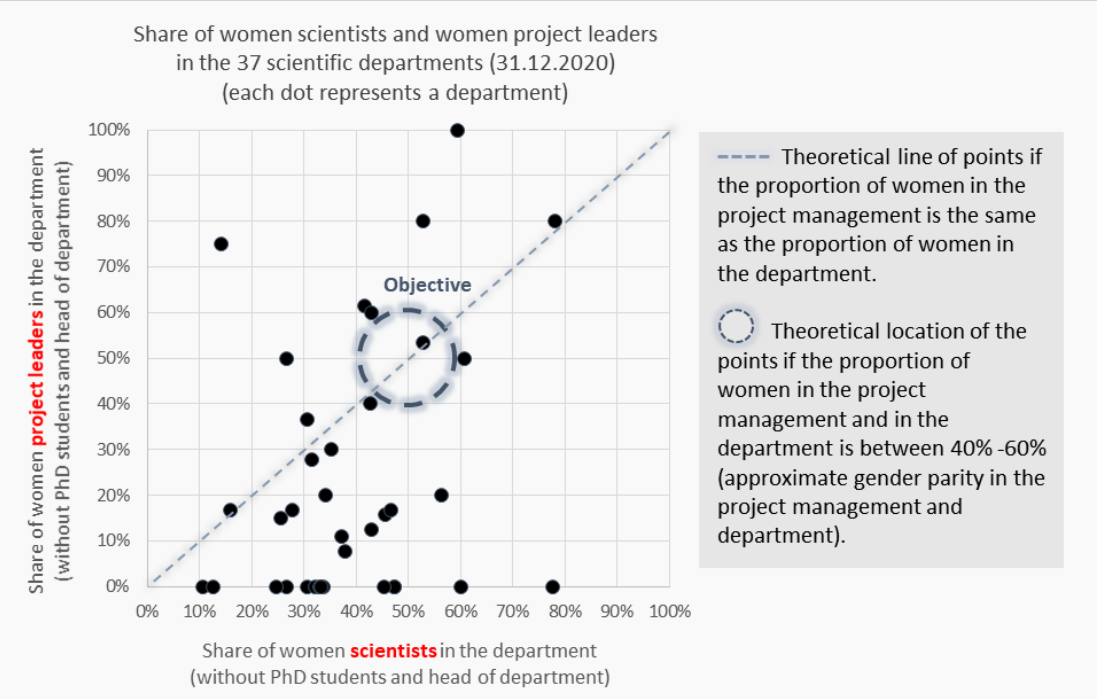

Figure 30 - Proportion of women in scientific staff and project management (excluding doctoral students and departmental lead) (31.12.2020)

Figure 30 shows the proportion of women in scientific staff and project management for each department (black dots), as registered in the UFZ project database. A point lying at the 1:1 line indicates that the proportion of women in project management in a department is as high as the proportion of female scietists in the department. A point below this line means that the proportion of women in project management is lower than the proportion of female scientists in the department; a point above it means the proportion of women in project management is higher than the proportion of female scientists in the department. The circle marks the area in which the points (would) lie if both project management and the research positions in the department were staffed with approximately gender parity.

A large number of the points are below the 1:1 line and a considerable number are on the 0% line for project management (y-axis). In these departments, there are no women in project management positions despite varying shares of female scientists in these departments.

Indicator: PoF IV: Chair of the Integration Platforms

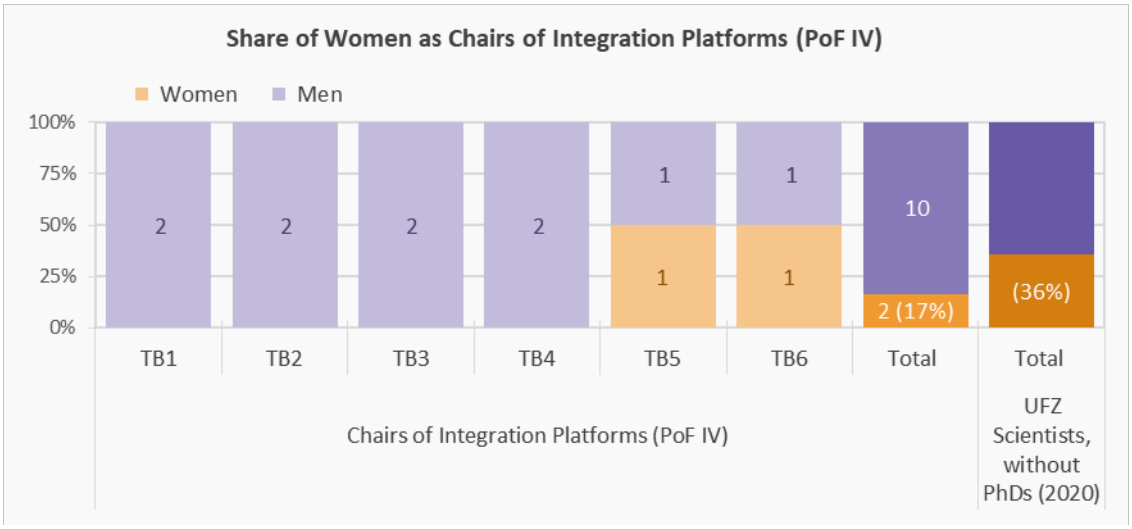

Figure 31 - Number of men and women chairing the integration platforms of the PoF IV period at the UFZ (as of spring 2021), TB = research unit

For the fourth period of programme-oriented research (PoV IV) starting in 2021, research at the UFZ is organised into six integration platforms, each chaired by two members of the scientific staff. In 2021, only 2 of the 12 positions as chair of an integration platform were appointeid to female scientists.

Indicator: Payment structure

The amount of one's income affects the extent of social and personal approval, independence, and power. Therefore, income is an important indicator of gender equality. Women in Germany still earn less than men (gender pay gap). This is not only due to the fact that women are less frequently employed in well-paid (managerial) positions, more frequently work part-time, more frequently have interruptions in their professional biographies, and more frequently work in lower-paid sectors and occupations ("unadjusted gender pay gap"). In general, jobs that are mainly chosen by women are valued and appreciated less, which is reflected in the wage level (Hausmann et al. 2015). However, even in comparable jobs and with the same qualifications, women in Germany earn on average 6% less than men ("adjusted gender pay gap") (source: e.g. Federal Statistical Office). Payment for almost all UFZ staff, except professorships, conform to the German civil service pay scale TVöD.

Payment Structure UFZ total

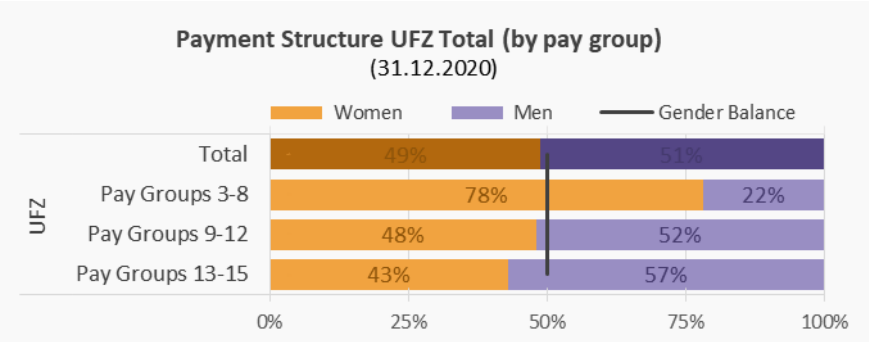

Figure 32 - Share of women and men at the UFZ (third-party funded or budget-funded) in pay groups E13-E15 (31.12.2020)

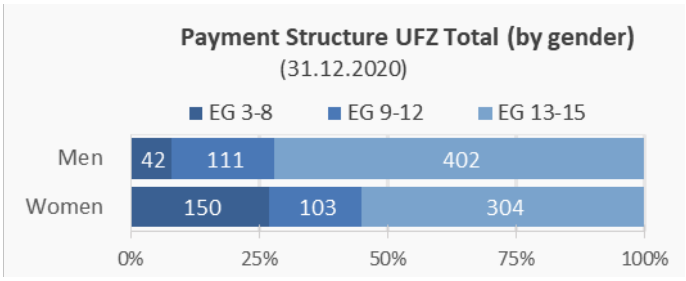

Figure 33 - Distribution of pay groups by gender at the UFZ in total (31.12.2020)

Figure 32 shows the shares of women and men at the UFZ in total and in various pay groups. About as many women (49%) as men (51%) work at the UFZ. In pay groups 3-8, women are clearly overrepresented (78%), in pay groups 9-12 they are represented according to their overall share (48%), and in pay groups 13-15 they tend to be underrepresented (43%). Figure 33 shows, with an alternative representation of the same figures, how the pay groups are unequally distributed within the groups of men and women. In absolute figures, in pay groups 5-12 there are about 100 female employees more than male ones, while there are about 100 female employees less than male ones in the higher pay groups.

Payment structure UFZ Science

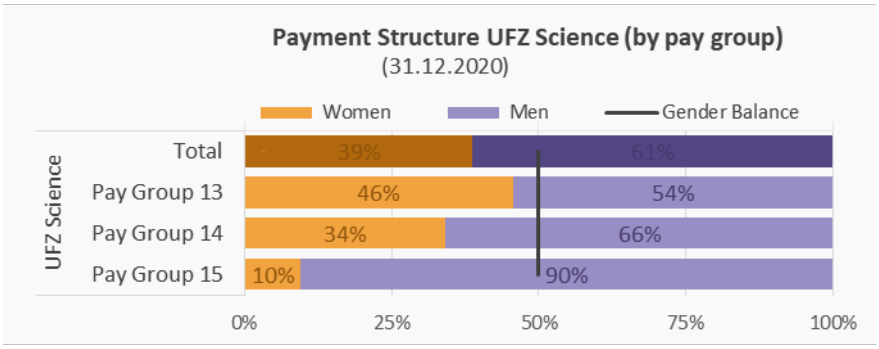

Figure 34 - Share of women and men in the field of science at the UFZ (third-party funded or budget-funded) in the pay groups E13-E15 (31.12.2020)

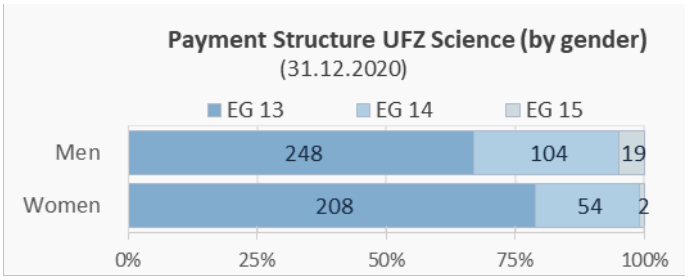

Figure 35 - Distribution of pay groups by gender in the field of science at the UFZ (31.12.2020)

Figure 34 shows the shares of women and men in the field of science at the UFZ in the pay groups E13-E15 in total and separately for the pay groups E13, E14, and E15. Slightly less female scientists (39%) than male scientists (61%) work at the UFZ. While female scientists are somewhat overrepresented in pay group E13, they are somewhat underrepresented in pay group E14. 10% of the remuneration in pay group E15 are accounted for by female scientists. However, this pay group is currently characterised by large fluctuations and small numbers due to the sharp decline in the amount of positions and only few new appointments. Thus, the data is difficult to interpret. Figure 35 uses an alternative representation of the same figures to show how the pay groups are unequally distributed within the groups of male and female scientists.

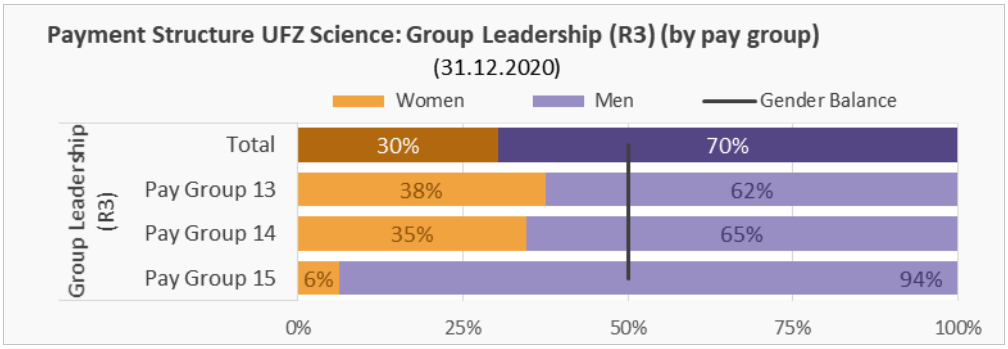

Figure 36 - Share of women and men as group leaders in the field of science at the UFZ in total (third-party funded or budget-funded) and in various pay groups (31.12.2020)

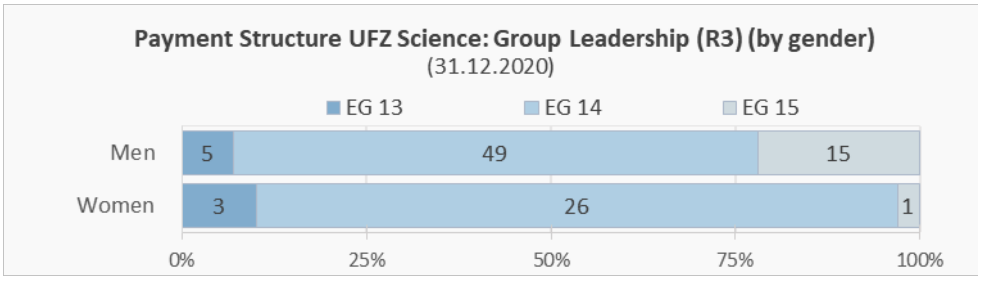

Figure 37 - Distribution of pay groups by gender of group leaders in the field of science at the UFZ (31.12.2020)

Figure 36 shows the shares of women and men as group leaders in the field of science at the UFZ in total and in the pay groups E13, E14, and E15. Significantly fewer female scientists head a working group (30%) than male scientists (70%). Measured against this, female group leaders are slightly overrepresented in pay groups E13 and E14 (38% and 35%, respectively) and very significantly underrepresented in payment group E15 (6%). However, the procedure for allocating

pay group 15 at the UFZ has changed fundamentally in recent years and is currently under review. Figure 37 uses an alternative representation of the same figures to show how the pay groups are unequally distributed within the groups of male and female group leaders.

Payment structure UFZ Administration

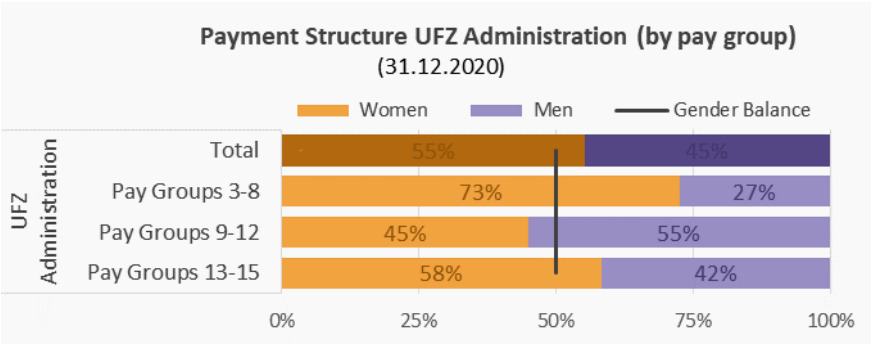

Figure 38 - Share of women and men in the field of administration at the UFZ in total and in various pay groups (31.12.2020)

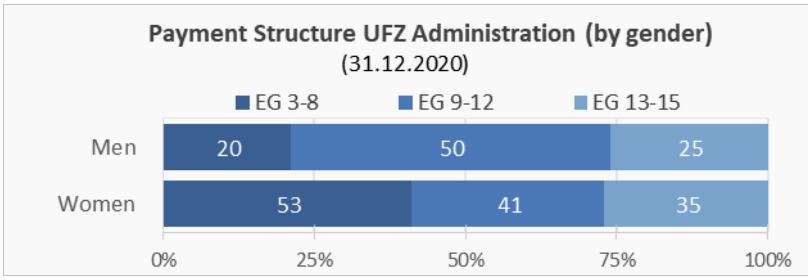

Figure 39 - Distribution of pay groups by gender in the field of administration at the UFZ (31.12.2020)

Figure 38 shows the shares of women and men in the field of administration at the UFZ in total and in the various pay groups. At the UFZ, slightly more women work in the field of administration (55%) than men (45%). Women are clearly overrepresented in pay groups 3-8, underrepresented in pay groups 9-12, and approximately represented in pay groups 13-15 according to their share in the administration in total. According to the TVöD, secretarial and assistant positions are frequently remunerated in pay groups 5-8 and are often occupied by women. According to the TVöD, IT positions are frequently remunerated in pay groups 9-12 and are often occupied by men. Figure 39 shows with an alternative representation of the same figures how the pay groups are unequally distributed within the groups of men and women.

Payment structure UFZ Technical Staff

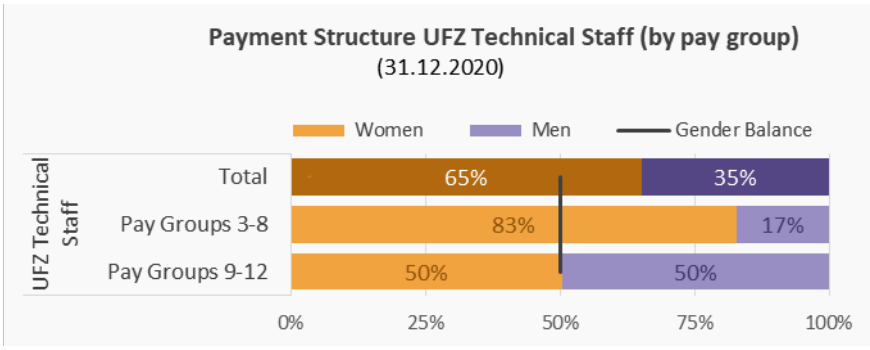

Figure 40 - Share of women and men in the field of technical support at the UFZ in total and in various pay groups (31.12.2020)

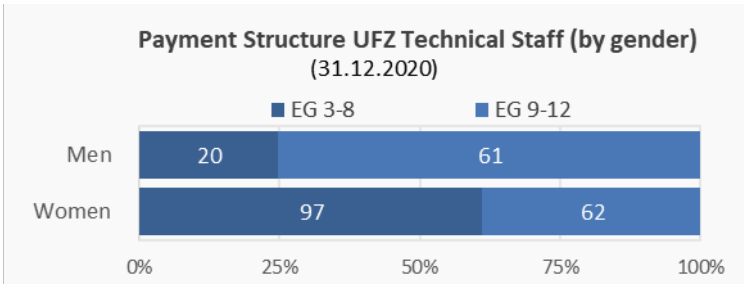

Figure 41 - Distribution of pay groups by gender in the field of technical support at the UFZ (31.12.2020)

Figure 40 shows the shares of women and men in the field of technical support at the UFZ in total and in various pay groups. At the UFZ, significantly more women work in the field of technical support (65%) than men (35%). In addition to positions in information technology, the field of technical support also includes science-assisting staff such as laboratory assistants as well as some secretarial and management assistant positions. Women are clearly overrepresented in pay groups 3-8 and underrepresented in pay groups 9-12 according their overall share in the field of technical support. Figure 41 shows with an alternative representation of the same figures how the pay groups are unequally distributed within the groups of men and women.

A consideration of the causes and conditions for the unequal payment structure must take into account the very different occupational profiles that lie in the field of technical support, as they preferred differently by men and women and are valued differently by the TVöD: Professions that are predominantly chosen by men are classified into higher pay groups than professions that are predominantly chosen by women.

This is also reflected in the pay groups for employment after training: despite having the same qualification according to the Chamber of Industry and Commerce and the same or even longer training period, trainees in the occupations of biology laboratory assistant, office management assistant and industrial mechanics assistant are taken on in pay group 5 after their training, while trainees in the occupation of IT specialist are taken on in pay group 6. Also, graduates from the University of Cooperative Education are taken on as merchants and biology laboratory assistants in pay group 9b, while graduates of IT occupations are taken on in pay group 10. The structure of the TVöD reveals the empirically confirmed and in its causal direction certain evidence that activities which are primarily chosen by women are valued and appreciated less, which in turn is reflected in

payment levels. The UFZ cannot directly change the structurally unequal appraisal of work inscribed into the TVöD, but it should be aware of the unequal appraisal and its consequences.

Indicator: Funding in science

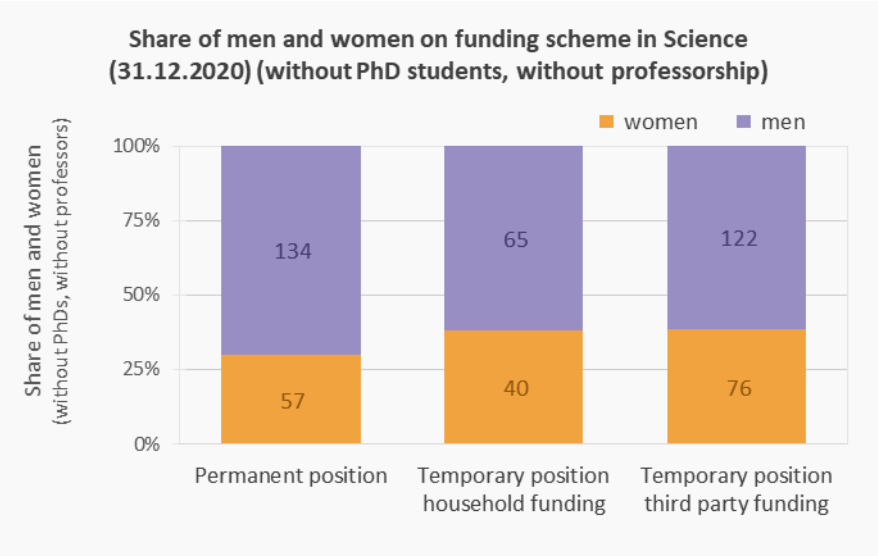

Figure 42 - Share of men and women in the field of science at the UFZ financed by permanent employment contracts, fixed-term employment contracts on budget, and fixed-term employment contracts on third-party funding (in the case of mixed funding, the one with the greater allocation of work time is counted).

Figure 42 shows the share of women and men in the field of science at the UFZ broken down by funding through permanent employment contracts, fixed-term employment contracts on budget, and fixed-term employment contracts on third-party funding. For male scientists, the most common form of funding is permanent employment (134 employees). For female scientists, the most common form of funding is fixed-term employment on third-party funding (76 persons). If only fixed-term appointments are considered, the share of women on budget and on third-party funding is comparable and corresponds approximately to the share of women in science at the UFZ in total (37% women, 63% men, without PhD, without professorship). Measured against the limitation of contracts, secure and insecure employment conditions are unequally distributed between male and female scientists.

Indicator: Tenure in science

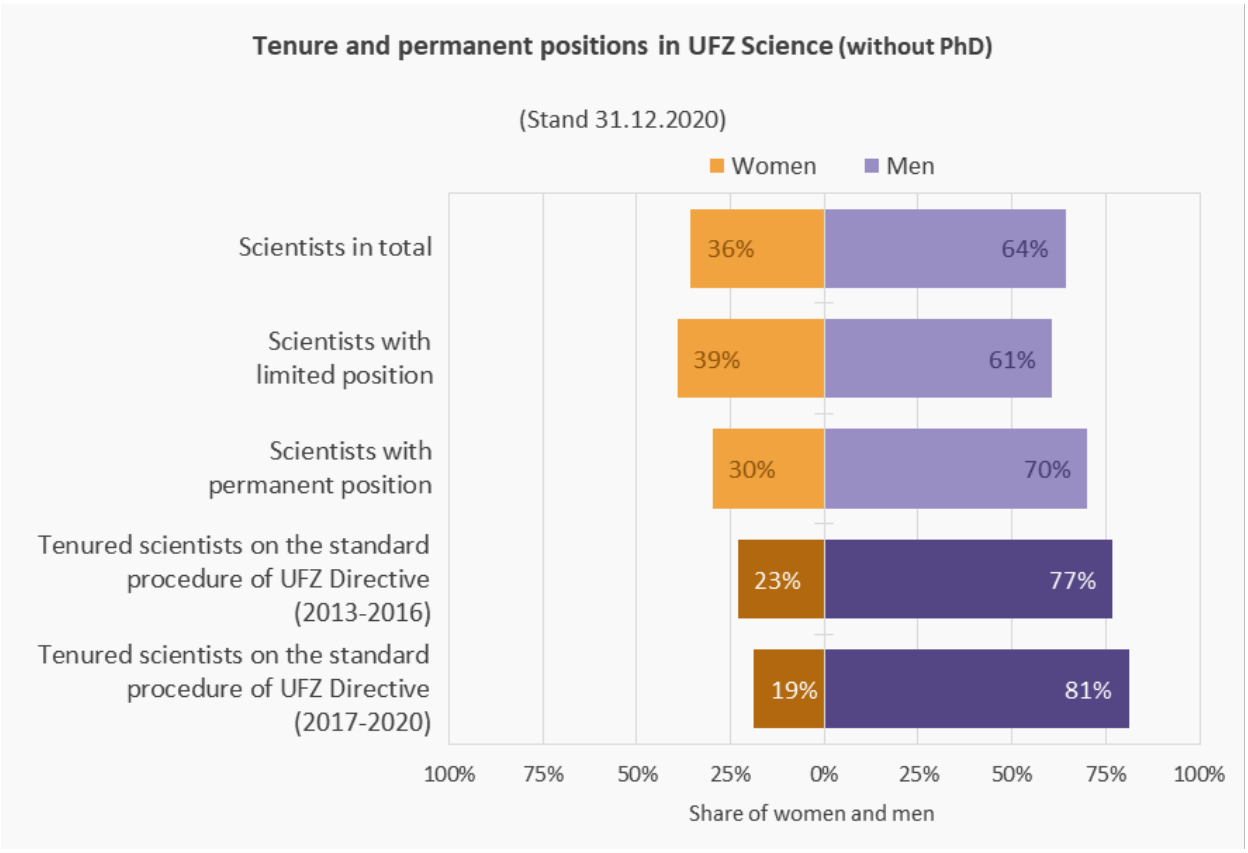

Figure 43 - Share of male and female scientists at the UFZ with limited and permanent positions (31.12.2020) and among those being tenured as researchers via the standard procedure of the UFZ Directive (2013-2016, 2017-2020) [In addition to the standard procedure, there may be an accelerated tenure procedure, e.g. in the context of being offered a chair or the acquisition of highly competitive funding]

Figure 43 shows the gender ratio among UFZ scientists (excluding PhD students) in total, with limited positions, with permanent positions, as well as among those who received a tenured position as researcher by the standard procedure according the UFZ Directive in the period 2013-2016 and 2017-2020.

At the UFZ, the permanent appointment as an active researcher is regarded as a possible career step in the overall picture of an individual's academic career. For years, the proportion of women who are granted tenure for active research via the standard procedure of the UFZ Directive has been significantly lower than the proportion of female postdocs with a fixed-term contract, i.e. men are granted tenure disproportionately more often compared to the total number of scientists with a fixed-term contract. While the rate of positive decisions on submitted applications for tenure is comparable for women and men, there is a clear under-representation of women in the applications for tenure submitted via standard procedure. Applications for tenure are submitted in close consultation with the scientific manager. In addition to the standard procedure, there may also be accelerated procedures, e.g. in the context of being offered a chair or the acquisition of highly competitive funding.

Area: Visibility and participation

There is no reason to assume that the performance of female scientists is worse than that of their male colleagues. Nevertheless, the genders are represented very differently with increasing career stage. The reasons for this vary. Rarely, the reason is active exclusion, but often it is the force of habit and the impact of (missing) role models. What we know influences the way we judge things and make decisions. Therefore, improving gender ratios also means sustainably creating role models, i.e. recognising achievements, increasing visibility, enabling participation. The following figures show the gender ratios for different areas of visibility and participation of female scientists at the UFZ.

Indicator: Supervision boards of the PhD colleges

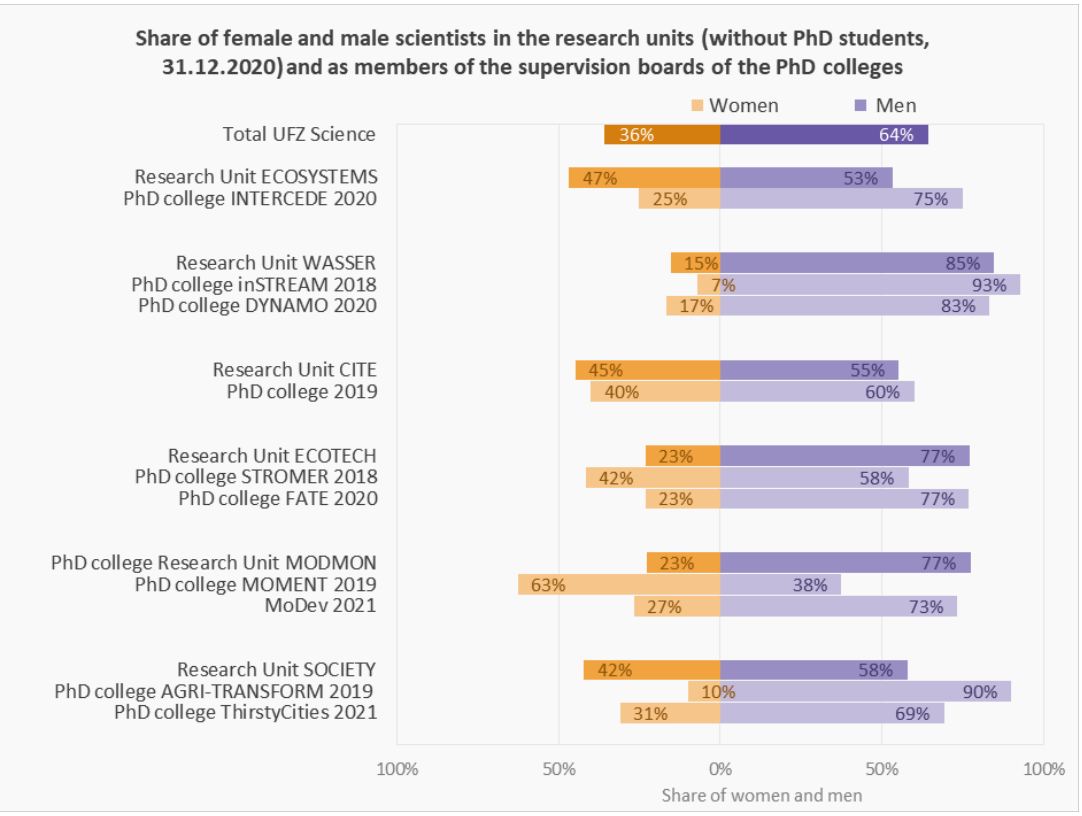

Figure 44 - Share of female and male scientists in the research units (without doctoral researchers, 31.12.2020) and as members of the supervision boards of the PhD colleges

Figure 44 shows the gender ratios in the six research units of the UFZ and in the supervisory committees of the respective PhD colleges (PhD Themenkolleg). While in some PhD colleges, the share of women in the commissions corresponds to or exceeds the share of women in the research units, the share of women in other commissions is significantly smaller than the share of women in the associated research unit. In case women are underrepresented in the supervisory committees, it is important to examine how this underrepresentation came about and how gender parity can be achieved for future PhD committees.

Indicator: Boards, councils, and commissions

The participation of women in decision-making processes and thus in (professional) political influence is an essential element of gender equality. Furthermore, balanced representation of interests is best achieved when interests are also represented in persona. Diversity of boards and committees not only leads to more creative processes and solutions, but also sustainably improves the opportunities of those who are underrepresented in everyday work.

Councils and advisory boards

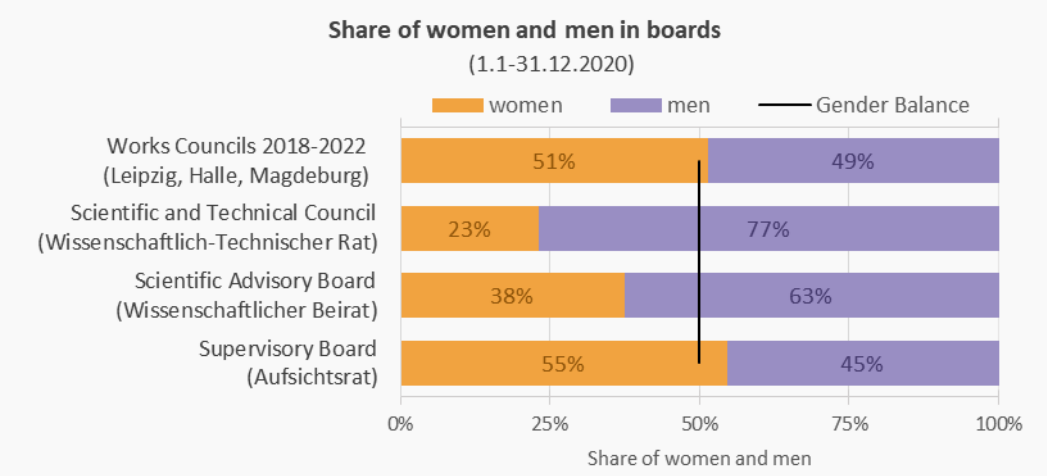

Figure 45 - Share of women and men in councils and advisory boards of the UFZ (31.12.2020)

Figure 45 shows the gender ratio within various councils that accompany the work of the UFZ. The works councils (Halle, Magdeburg, Leipzig) have gender parity among its members and substitute members. In the Supervisory Board, the gender ratio is balanced with 5 female and 5 male members as well as a female chairperson. To represent the employees of the UFZ, one female scientist and one male scientist were elected to the Supervisory Board by the staff. The large under-representation of women on the Scientific and Technical Council (23%) can be traced back to the appointed members, the department heads, where women are under-represented. The gender ratio of the elected members of the Scientific and Technical Council corresponds to the (unbalanced) gender ratio of the scientific staff at the UFZ. The Scientific Advisory Board of the UFZ, which is composed of members external to the UFZ, shows a clear underrepresentation of women. The UFZ can work towards a parity composition of the advisory board by making suitable proposals to the supervisory board for filling positions that become vacant.

Personnel Selection Commissions

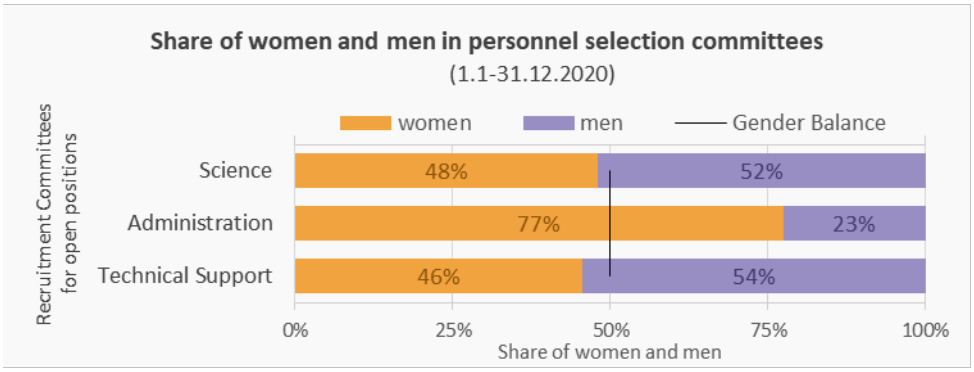

Figure 46 - Share of women and men in personnel selection committees for vacant positions in the fields of science, administration and technology at the UFZ (1.1.-31.12.2020)

Figure 46 shows the gender ratios in personnel selection committees for the fields of science, administration and technology. Due to the far-reaching consequences of biases in personnel selection, the composition of personnel selection commissions is of structural importance. Cumulatively across all personnel selection procedures in 2020, the commissions for vacant positions in the field of science as well as technology had approximately equal gender representation. In the field of administration, however, women were overrepresented in the commissions at 77%, especially since there are only slightly more women (55%) than men (45%) working in administration overall. A more balanced representation in the staff selection committees could lead to a more balanced gender ratio in newly recruited staff.

Professorship Appointment Committees and Tenure Committees

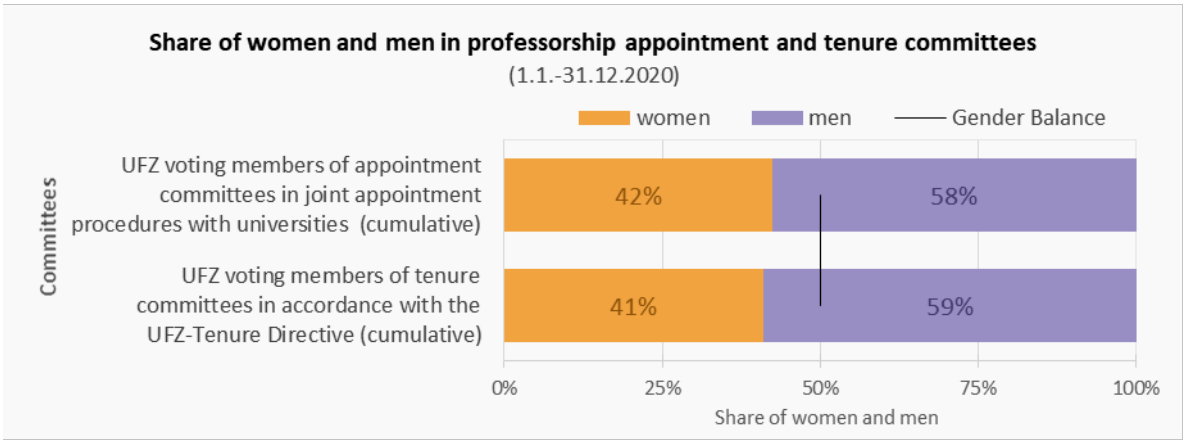

Figure 47 - Share of women and men among the voting members of the UFZ, added together across professorship appointment committees and tenure committees (1.1.-31.12.2020)

Figure 47 shows the gender ratio of voting UFZ members in professorship appointment committees and tenure committees, cummulated across all committees in 2020. In both areas, women are underrepresented at around 40%, although the proportion of women is greater than that among the scientific staff of the UFZ (36%, excluding doctoral students).

Indicator: UFZ Awards

The public invisibility of women and their achievements is a consequence - and above all a cause - of women's disadvantage in the distribution of power, money, influence, independence, recognition, and participation. An award is good publicity, has an important role model function, and is also often associated with (financial) support. The more women are awarded for their professional achievements, the more likely the image of the successful woman becomes familiar. This is particularly true for prizes that honour research, e.g. doctoral, publication or research awards. *More generally,* the same distorting mechanisms operate in nominations and jury decisions as in other personnel decisions, e.g. personnel selection: Learned beliefs of competence shape our all judgements and make it difficult to evaluate performance objectively.

Proposals and winners in 2020

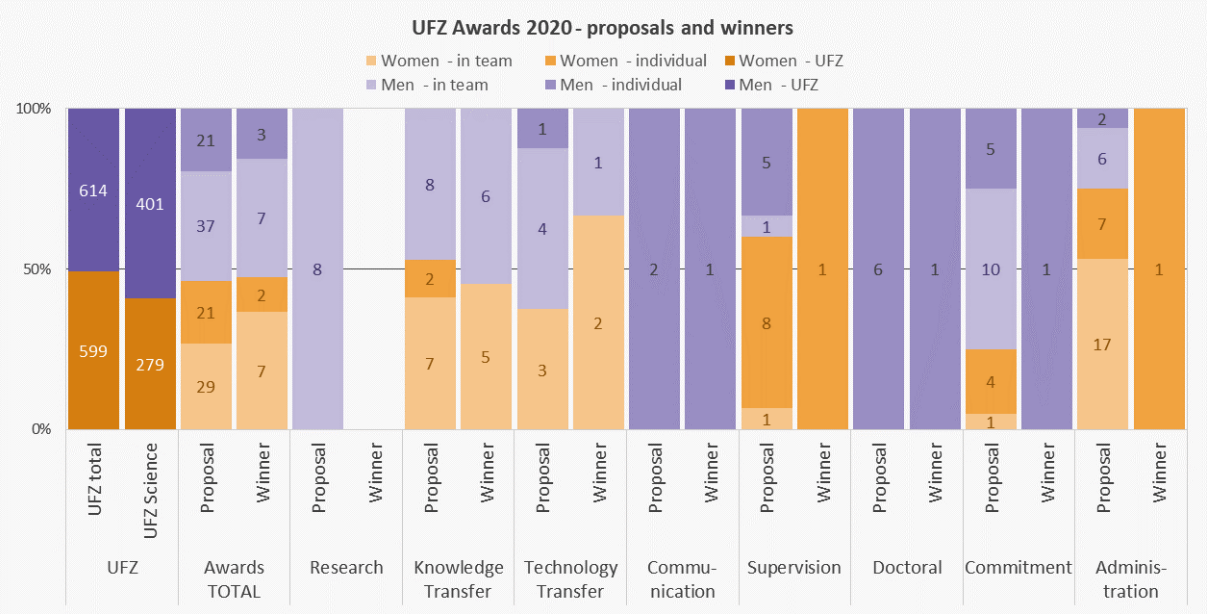

Figure 48 - Share of women and men among the proposals and winners overall and in the eight categories of the UFZ Awards 2020, shown separately for individuals and for persons as part of a team

Figure 48 shows the share of women and men among the proposals and winners of the UFZ awards in 2020 separately for individuals and for members of a team. Looking at the UFZ population, awards are fairly evenly distributed between women and men. In the field of science, slightly less women were awarded than men, but there are also less female scientists than male scientists at the UFZ. It is striking that there are awards which no women were nominated for at all in 2020: for research award, communication award, and doctoral award. While 56% of the PhD students are female, 6 male and no female PhD students were nominated for the doctoral award. Nominations can be made by the entire staff.

Proposals and winners in the period 2014-2020

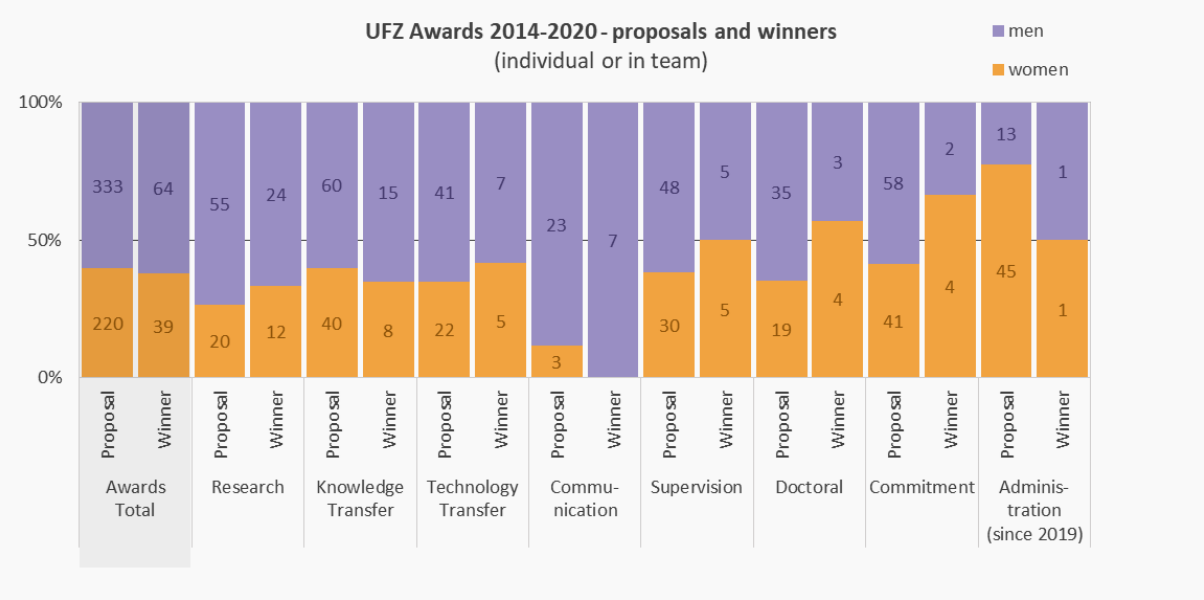

Figure 49 - Share of women and men among the nominees and winners overall and in the eight categories of the UFZ prizes in the period 2014-2020

Figure 49 shows the shares of women and men among the nominations and winners of the UFZ awards for the years 2014 to 2020. Each person is counted here, regardless of whether they were nominated or honoured as an individual or as part of a team. For all awards in total, the share of women among the winners corresponds to the proportion of women among the nominations. Although the ratios differ for the various award categories, the differences as well as the numbers of cases are small.

Indicator: Helmholtz Environmental Lecture (HEL)

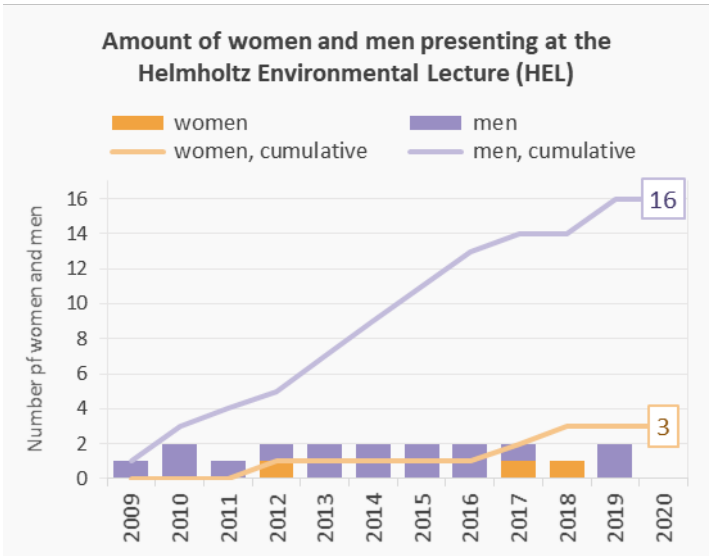

Figure 50 – Amount of women and men presentating at the Helmholtz Environmental Lecture - HEL (2009-2020)

Figure 50 shows the gender ratio among the speakers at the Helmholtz Environmental Lecture (HEL) between 2009 and 2020. In the last ten years, a total of 16 men and three women had been speaker. The HEL is a format in which individuals of societal relevance give a lecture that is related to environmental science research. In this setting, and given the public nature of this institution, it is appropriate to take the opportunity to increase the visibility of women and their scientific, social and political achievements.

Indicator: UFZ Telegraf

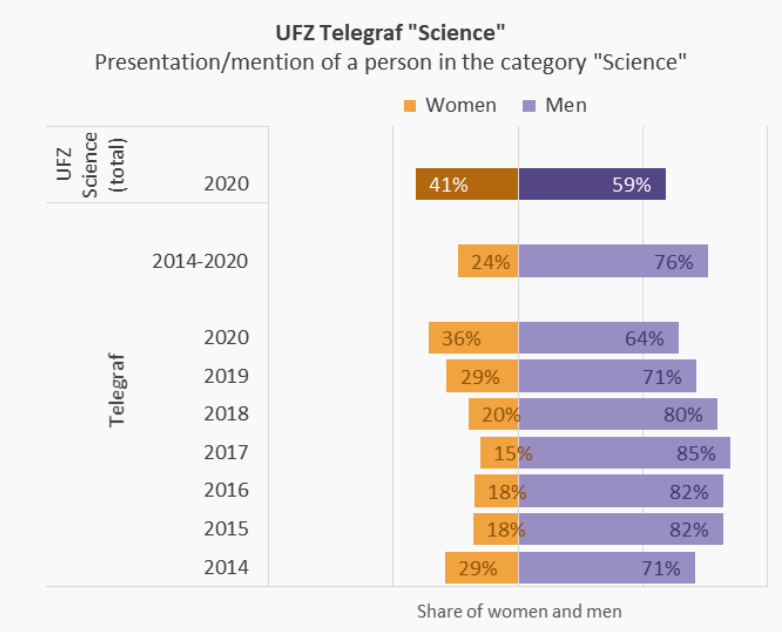

Figure 51 - Share of women and men presented in the UFZ Telegraf category "Science" (2014-2020)

Figure 51 shows the share of women and men among the portraits or mentions in the UFZ Telegraf articles in the category "Science" compared to their share among UFZ's scientific staff. The share of female scientists mentioned or portrayed fluctuated considerably in the years from 2014 to 2020 and was around 24% overall. In recent years, the proportion in reporting increased steadily and significantly to its previous high (36%), which, however, still does not correspond to the proportion of female scientists at the UFZ (41%).

An unbalanced representation is both an expression and a cause of the fact that science - especially natural science - is associated with masculinity. A balanced presentation would counteract this mental association. Overall, the UFZ has been on a good path here with the Telegraf since 2017.

Indicator: UFZ Annual reception

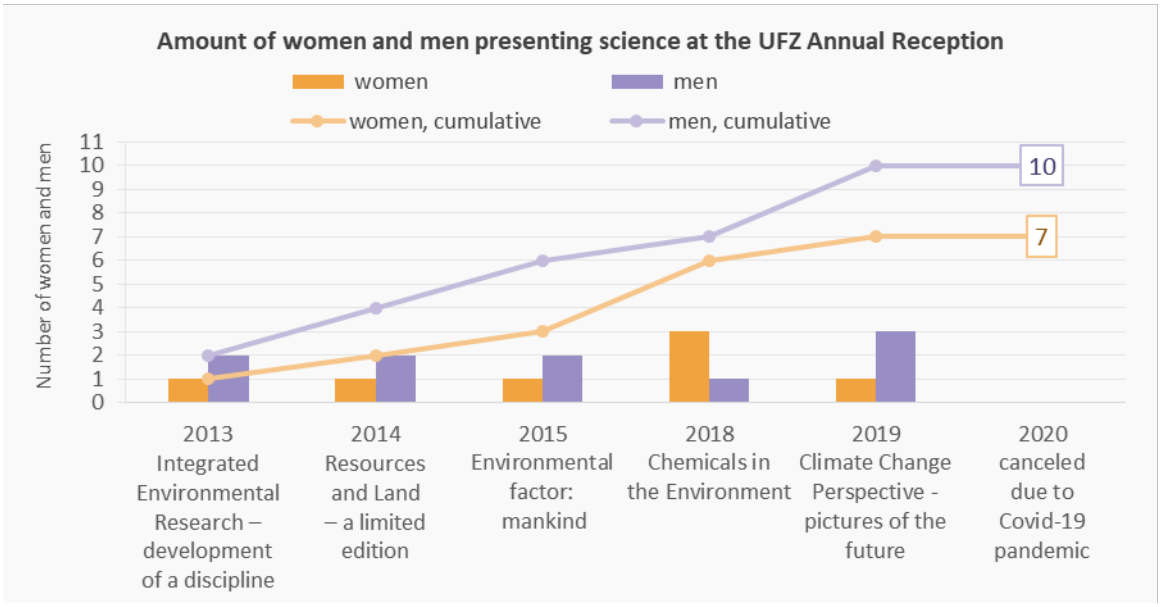

Figure 52 - Amount of women and men presenting science at the UFZ Annual Reception (2013-2020)

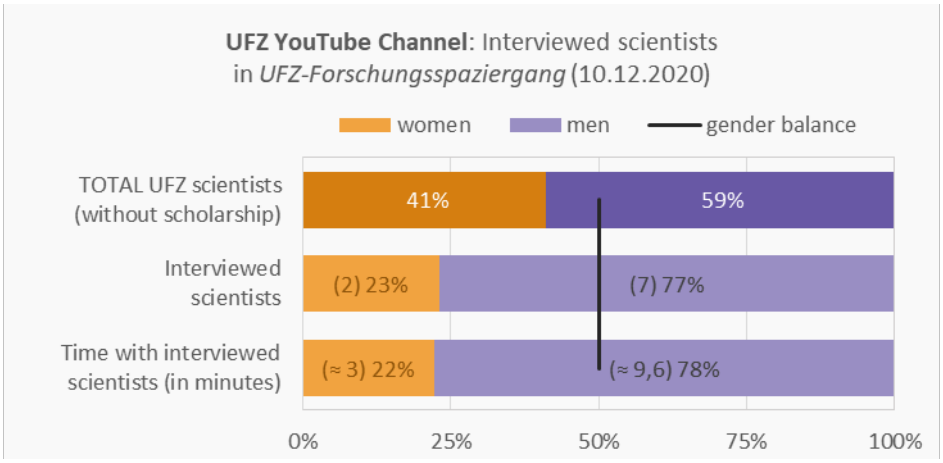

Figure 53 - UFZ research walk (*UFZ-Forschungsspaziergang*): Share of women and men interviewed and total length of interview time by gender (UFZ YouTube channel 10.12.2020)

Figures 52 and 53 show the gender ratio in the presentation of scientific topics at the Annual Receptions 2013-2019 and the Science Walk in 2020 as a replacement format due to the Corona pandemic. With one exception in 2018 ("Chemicals in the Environment"), male scientists outnumbered female scientists in the scientific presentations at the UFZ Annual Reception. Yet, a total of ten men and seven women have given talks. Concerning the science walk, interviews for the UFZ YouTube channel were conducted with women (23%) and men (77%). Compared to the gender ratio in the field of science (41% women, 59% men), this is a clear underrepresentation of women and their scientific activities at the UFZ.

A stronger presence of women on the one hand does justice to the contribution they make to science, and on the other hand it also encourages other women to become active in science and to pursue ambitious goals in doing so. With the annual reception, the UFZ achieves an external impact

that is not limited to scientific content, but also communicates the organisational culture and the canon of values of the research centre.

Indicator: UFZ YouTube channel

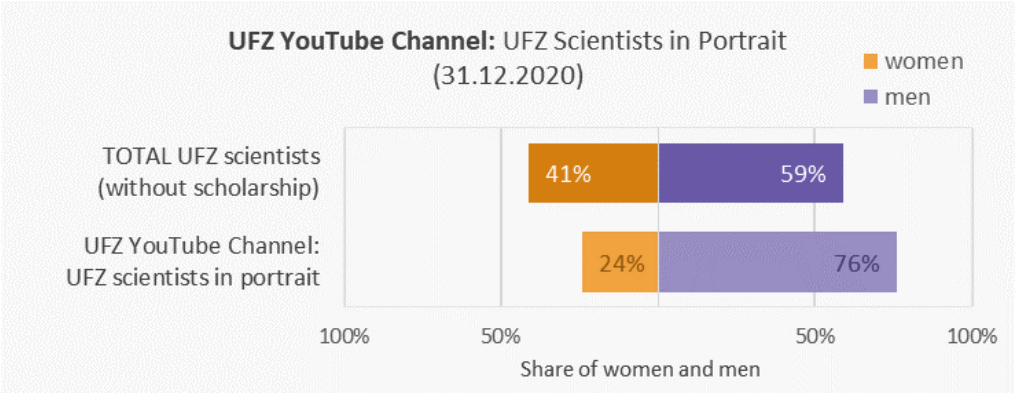

Figure 54 - Share of women and men portrayed as scientists in the UFZ YouTube channel (31.12.2020)

At its YouTube channel, the UFZ presents individual scientists in video portraits. The format allows the public an easily accessible impression of the research and the people working at the UFZ. Figure 54 shows the share of women and men portrayed on the UFZ YouTube channel. The graph shows that 24% of portrayed scientists are female and 76% are male. This does not reflect the gender ratio of the scientific staff working at the UFZ (41% women, 59% men). Considering the role model function of science and research in society, it is advisable to at least adjust the gender ratio in the public presentation of the UFZ to the gender ratio of the (scientific) employees.

Area: Reconcilableness of care work and paid work

The simultaneity of care work (e.g. family or care responsibilities) and paid work is always associated with a double burden and often with a reduction in working hours in order to meet the demands. In families, this double burden very often leads to traditional role patterns in the division of work regarding care, nursing, child-rearing, household and relationship tasks, i.e. to an unequal distribution of unpaid care work to the disadvantage of women. This has long-term consequences for individuals, our society, and research.

The unequal distribution of care work means that women are less likely to be represented at higher career levels and in academia. As a result, a great potential for professional excellence and creativity is lost, and women's opportunities to have a say and participate are limited. The individual financial disadvantages resulting from the disproportionate acceptance of unpaid care work (e.g. lower wage levels, part-time work, flatter career paths) increase dependency, limit options for action and increase the risk of poverty in old age.

For the UFZ, this cannot and should not be about interfering with the private division of responsibilities of employees. Rather, the framework conditions should enable an equal distribution of care work and support the compatibility with paid work in order to reduce disadvantages and fully use the potential for professional excellence and creativity.

Indicator: Part-time employment

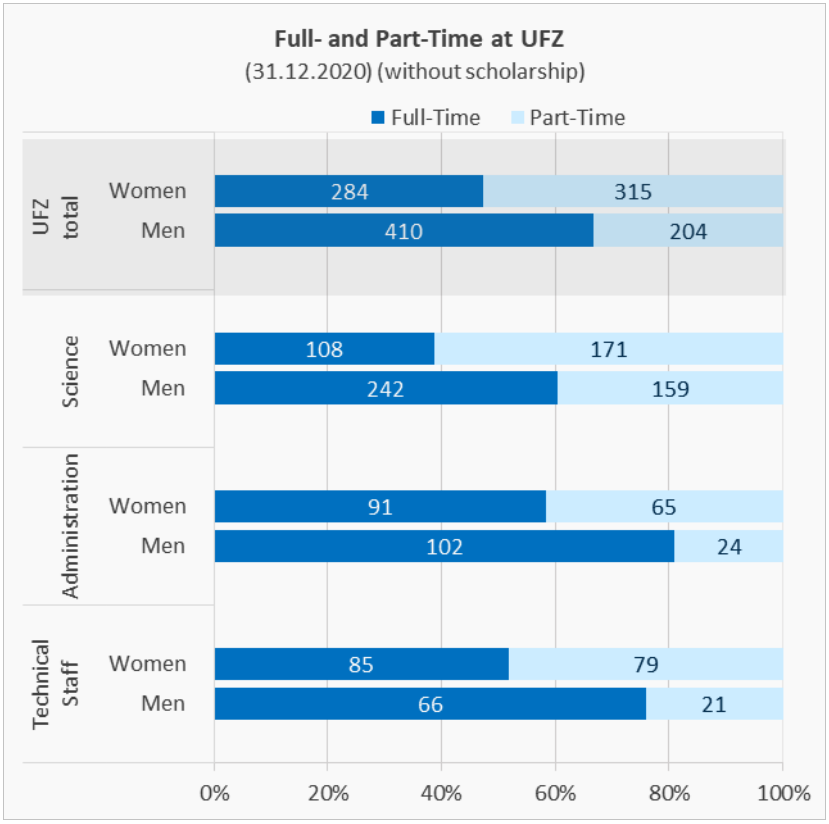

Figure 55 - Share of women and men working in part-time and full-time at UFZ (31.12.2020)

Figure 55 shows the share of women and men employed full-time and part-time at the UFZ - for the UFZ as a whole and broken down by the fields of science, administration and technical support. For all areas, it can be seen that more women work part-time than men. Despite various individual reasons for working full and part time, these figures are mostly a typical expression of traditional gender roles in the distribution of responsibility for household and care work. At the same time, however, in many phases of life it is simply necessary to reduce working hours. The UFZ can provide support here, for example by endeavouring to enable part-time management positions.

Indicator: Parental leave

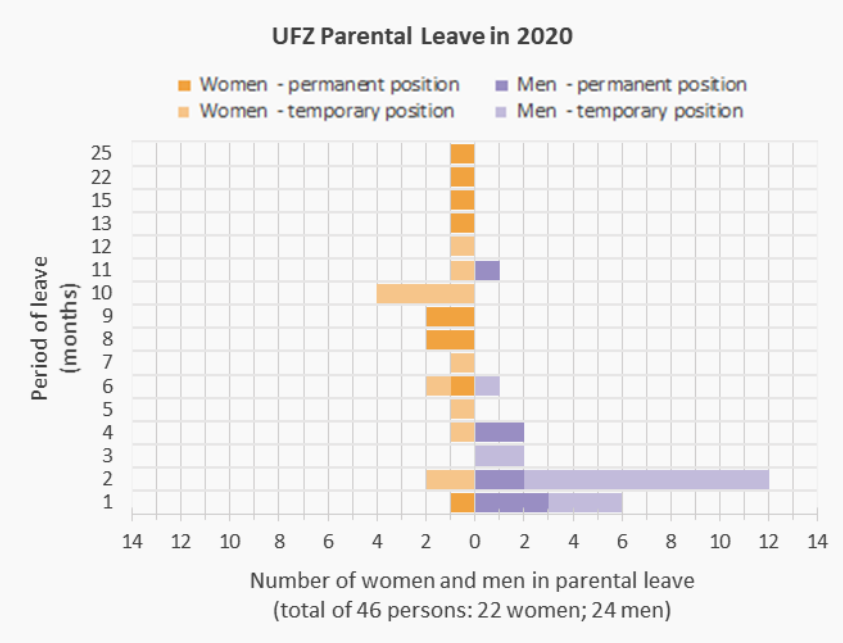

Figure 56 - Duration of parental leave at the UFZ by gender and by temporary/permanent position in 2020

Figure 56 shows how many men and women in total took parental leave in 2020 and to what extent. Although almost as many men as women took parental leave in 2020, it is clear that men often only take a very short break from work (predominantly only 1-2 months). Only one man chose to take parental leave for eleven months. For women, on the other hand, the number of parental leave months varies from one to up to 25 months with a small cluster at 10 months. The willingness of fathers to take (longer) parental leave would make an important contribution to the equal distribution of care work. The UFZ supports mothers and fathers in reconciling parental leave and career development with many structural measures and expert advice.

Parental leave of just under one year or longer is predominantly taken by persons with permanent employment contracts. Not all persons with fixed-term contracts have their contracts extended by the amount of parental leave taken. Therefore, parental leave is sometimes a major financial and planning challenge for people on fixed-term contracts. Fixed-term contracts without the security of being able to extend the contract by the amount of parental leave taken make it considerably more difficult to reconcile care work and paid work. The same applies to care work for elderly or ill family members in need of care. Data on such care periods are not yet collected at the UFZ.

Indicator: Perceived reconcilableness of family and work

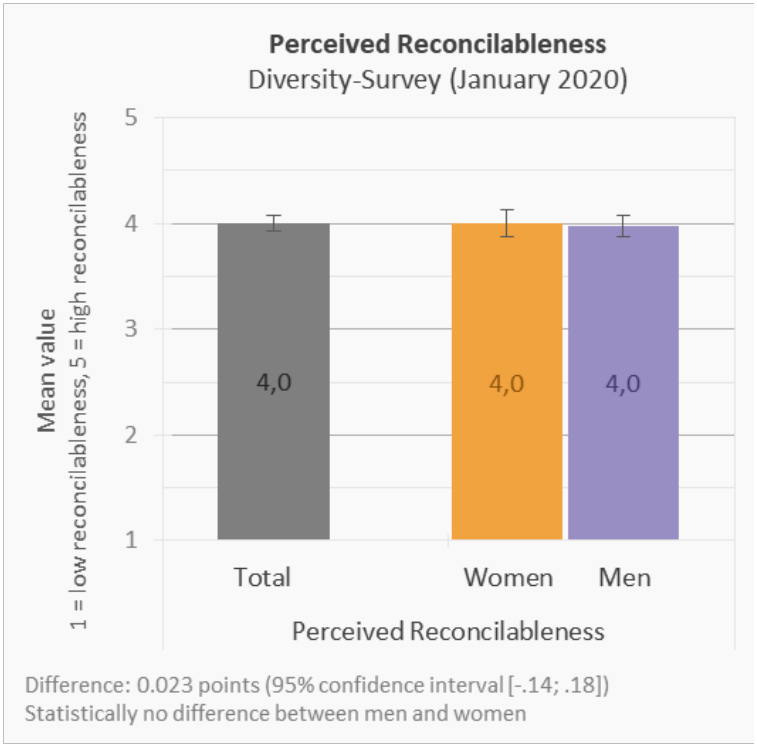

Figure 57 - Perceived reconcilableness of family responsibilities and work (Diversity-Survey, January 2020)

Figure 57 shows the perceived work-life balance in the context of the diversity and equal opportunity survey (Jan. 2020, see page 7). The reconsilableness of family and work is rated positively by both men and women with a value of 4.0. Since more women than men work part-time across all areas at the UFZ (Figure 55), it would be interesting to investigate to what extent the "part-time work" factor moderates the perception of reconcilableness. In other words: Would the same positive and equally distributed results be obtained when comparing only the responses of fathers and mothers working full-time? In any case, a good work-life balance has a positive effect on employees: high satisfaction not only prevents illness, but also promotes professional motivation. The UFZ also benefits: Family friendliness enhances attractiveness.

Area: Accessibility

Diversity of perspectives and skills is proven to be a source of creativity and innovation (Hofstra et al. 2020; Coscieme et al. 2020; Hunt and Layton, Dennis, Prince, Sara 2015; AlShebli et al. 2018; Powell 2018; Adams 2013; Woolley et al. 2010). It contributes to making smart decisions in the work context. However, there are often various barriers that prevent people with different perspectives and skills from collaborating and contributing. Accessibility means that the work environment in digital and physical space is accessible to all and that impairments, chronic illnesses, or other personal backgrounds do not determine where and to what extent people with different abilities can collaborate at the UFZ.

Indicator: Employment rate of severely disabled people

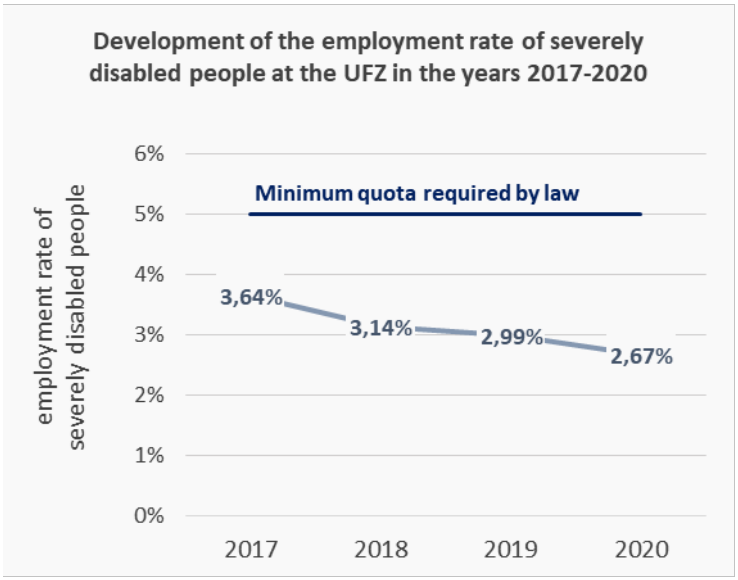

Figure 58 - Development of the employment rate of severely disabled persons at the UFZ (2017-2020)

Figure 58 shows the development of the employment rate of severely disabled people at the UFZ. The reason for the continuous decrease is the retirement of many severely disabled employees combined with a below-average number of corresponding applications. Public and private employers with an annual average of at least 20 jobs per month must employ severely disabled people in at least 5% of these jobs (SGB IX). As long as employers do not employ the prescribed number of severely disabled people, they pay a compensatory levy for each unfilled compulsory job for severely disabled people. The compensatory levy amounts to € 0 per month and unfilled compulsory job for an annual average employment rate of 5% and more, € 125 for 3% to less than 5%, € 220 for 2% to less than 3% and € 320 for 0% to less than 2%. In the company agreement "Agreement on the Integration of Severely Disabled Persons", the UFZ has committed itself to promoting severely disabled persons and persons of equal status in employment and training.

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Appendix

Appendix A - CEWS University ranking 2019 applied for the UFZ (2020)

Löther, Andrea (2019). *University ranking according to gender equality aspects 2019*. (cews.publik, 23). Cologne: GESIS - Leibniz Institute for the Social Sciences Specialized Information for the Social Sciences, Center of Excellence Women in Science and Research (CEWS). https://nbn-resolving.org/urn:nbn:de:0168-ssoar-64113-9

University	Promotions	Post-Docs	Full-time scientific andartistic staff	Professorships	Increase in the proportion of women in thefull-time workforce. Scientificand artificialstaff	Increase in the proportion of female professors compared to2012
Legend: = top group = 2 points = middle group = 1 point = final group = 0 points						

Overall result for the UFZ

Indicator		**CEWS 2019**	**UFZ 2020**	**UFZ Points**
Promotions	Top group	0,96	1,13	2
	Final group	0,751		
Habil/AG management	Top group	0,91	0,53	0
	Final group	0,633		
Scientific staff	Top group	0,92	0,73	0
	Final group	0,804		
Professorship	Top group	0,62	0,46	1
	Final group	0,4		
Trend_Wiss.Personal	Top group	0,5	0,01	1
	Final group	0,001		
Trend_Professorship	Top group	0,5	0,02	1
	Final group	0,001		

➔ Result: 5 out of 12 possible points = ranking group 8

Calculation UFZ

$$I_{Prom} = \frac{\left(\frac{\text{Number of female doctoral scientists at UFZ}}{\text{Numer of doctoral scientists at UFZ}}\right)}{\left(\frac{\text{Number of female German and foreign students in Germany}}{\text{Number of German and foreign students in Germany}}\right)}$$

$$I_{PostDoc} = \frac{\left(\frac{\text{Number of female work group leaders at UFZ}}{\text{Numer of work group leaders at UFZ}}\right)}{\left(\frac{\text{Number of female doctoral scientists at UFZ}}{\text{Number of doctoral scientists at UFZ}}\right)}$$

$$I_{WissPers} = \frac{\left(\frac{\text{Number of female postdocs at UFZ}}{\text{Numer of postdocs at UFZ}}\right)}{\left(\frac{\text{Number of female German and foreign students in Germany}}{\text{Number of German and foreign students in Germany}}\right)}$$

$$I_{Prof} = \frac{\left(\frac{\text{Number of female professors at UFZ}}{\text{Numer of professors at UFZ}}\right)}{\left(\frac{\text{Number of female doctoral scientists at UFZ}}{\text{Numer of doctoral scientists at UFZ}}\right)}$$

I_{Prof} = share of women among postdocs at UFZ year 1 – share of women among postdocs at UFZ year 2

I_{Prof} = share of women among professors at UFZ year 1 – share of women among professors at UFZ year 2

Differences to the CEWS ranking in the calculation for the UFZ:

- Students = no UFZ figures, therefore reference to Germany-wide graduation figures
- PhD = registered as a PhD student at the UFZ as of 31.12.2020 (CEWS: number of completed PhDs in the census year)
- Qualification = deposited as working group leader at the UFZ as of 31.12.2020 (CEWS: number of completed habilitations and W1 professorships)
- Professorship = persons paid by the UFZ as W2/W3 (CEWS: number of persons paid W2 and W3 as well as the fulltime visiting professorships)

Data UFZ

Data	2016	2020*
Number of women at the UFZ with ongoing doctorates	54	100
Number of all doctoral students at the UFZ	108	178
Number of German and foreign female students in the winter semesters (Federal Statistical Office)		1470881**
Number of German and foreign students in the winter semesters (Federal Statistical Office)		2948695***
Number of working group leadership by women at the UFZ	28	30
Number of working groups at the UFZ	93	101
Number of women scient. Staff at the UFZ (R2+R3, without PHDs and without professorship)	143	169
Total number of scient. Staff at the UFZ (R2+R3, without PHDs and without professorship)	408	463
Number of female professors (all women paid by the UFZ as W2, W3 or C)	7	10
Number of professors (all persons paid by the UFZ as W2, W3 or C)	30	39
Proportion of women among scientific staff at the UFZ	35,05%	36,50%
Share of women in professorships	23,33%	25,64%

UFZ cut-off date 31.12.2020

** Students WS 2020/2021: https://www.destatis.de/DE/Presse/Pressemitteilungen/2020/12/PD20_497_213.html

*** Students WS 2020/2021: https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bildung-Forschung-Kultur/Hochschulen/Tabellen/studierende-insgesamt-bundeslaender.html

Gender-specific choice of subjects

In some cases, there is different demand for different fields of study from men and women. The CEWS ranking indicates the share of women in doctorates in relation to the share of female students at the university (CEWS Ranking p. 31/33), so it uses a corrected indicator for the share of women in doctorates to account for gender-specific subject choices.

The subject background of doctoral researchers at the UFZ is currently not systematically recorded. Due to the breadth of content of UFZ research and the enrolment of its doctoral students at over 40 universities in Germany, it can be assumed that the doctoral students do not come very strongly from certain gender-specific subjects. Experience shows that it is mainly doctoral students in social and natural science subjects. According to the *Federal Report on Young Academics* (BuWiN2021 (e.g. Fig. B2, p.81)), the proportion of women graduates in Germany is as follows: Social Sciences 56%, Natural Sciences 47%, Agriculture/Forestry/Nutrition 63%, Engineering 24%. In fact, there is gender parity among doctoral researchers at the UFZ (in 2020 even slightly more women than men).

Against this background, the gender-specificity of the choice of subjects should not in itself be the cause of the UFZ's hypothetical position in the CEWS ranking.

Appendix B - Glass Ceiling Index

Center	Proportion of female scientific staff (31.12.2020)	Proportion of women in W3/W2 professorships (31.12.2020)	Glass Keiling Index
Center	46%	22%	2,11
Center	49%	21%	2,34
Center	41%	28%	1,50
Center	42%	32%	1,33
Centre (UFZ)	37%	23%	1,59
Center	30%	33%	0,91
Center	52%	31%	1,68
Center	40%	33%	1,21
Center	21%	14%	1,57
Center	21%	30%	0,71
Center	25%	13%	1,91
Center	23%	33%	0,71
Center	32%	26%	1,23
Center	24%	18%	1,36
Center	23%	14%	1,64
Center	22%	27%	0,84
Center	12%	17%	0,72
Center	54%	23%	2,34
Center	31%	10%	3,20
Helmholtz	30%	22%	1,34